Science Library

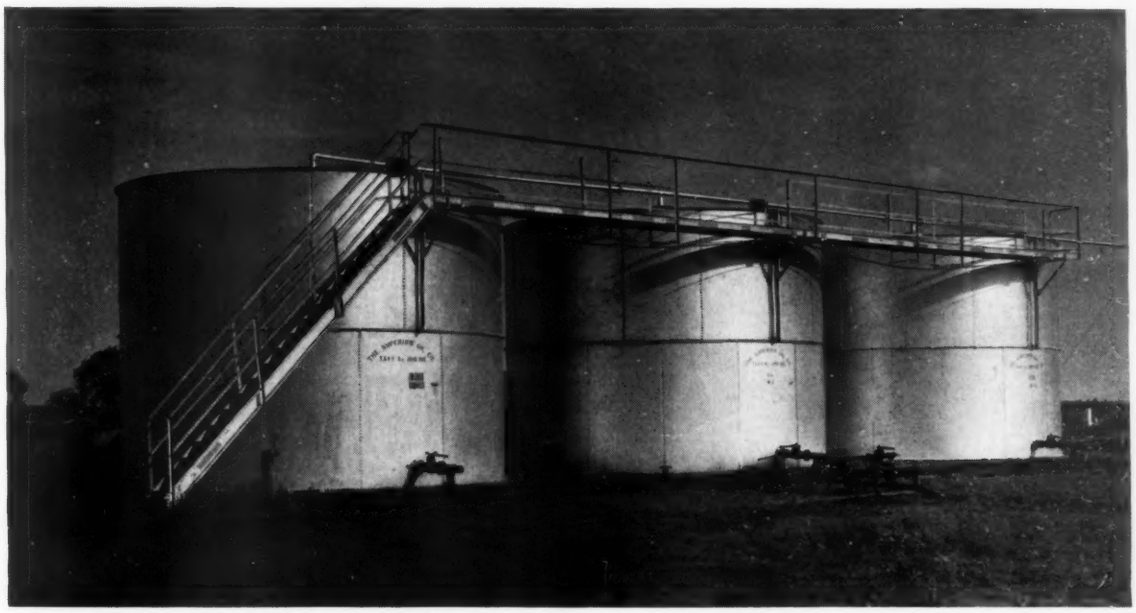
JUL 23 1937

the OIL AND GAS JOURNAL

JULY 22 1937

PRICE 5 CENTS

BEFORE BUYING BOLTED STEEL TANKS



3 1000-Bbl. Maloney Tanks equipped with Maloney Stairway and Walkway, Superior Oil Company of California, Evangeline, La., Pool.

—note these 12 MALONEY ADVANTAGES

1. MALONEY BOLTED STEEL TANKS ARE CONSTRUCTED OF HIGHEST GRADE COPPER-BEARING STEEL. Proved to possess 200 to 500% greater resistance to corrosion than ordinary steels.
2. PATENTED "CRIMP" at all seams and joints, assures accurate fit of parts without calking. Provides a corrugation at each seam, which greatly increases rigidity.
3. ALL SEAMS REINFORCED with heavy steel channels, which also prevent bolt heads from turning.
4. EXTRA-HEAVY STEEL DECK RAFTER. Attachable to segmental deck sheets with bolts held in place.
5. PUNCHED, CLOTH-INSERTED RED RUBBER PACKING. Hugs bolts tightly and is extra durable in all products of crude.
6. BOLTS OF 90,000 POUNDS TENSILE STRENGTH. Heads won't twist off; threads won't strip.
7. LARGE 30"x48" CLEAN-OUT PLATE, heavily reinforced. Easily and quickly removed and replaced.
8. ALL-ALUMINUM NON-SPARK VACUUM-PRESSURE VALVE AND THIEF HATCH, with 8x18-inch opening.
9. EXTRA-DURABLE PAINTS. Tanks are spray-gun painted inside and out with our special Red Chromated Iron Oxide Paint as primer. Outside finish coat is special high-grade Aluminum paint. All material thoroughly cleansed before painting.
10. "DOUBLE HOT DIP" GALVANIZED COATING is applied to standard MALONEY Tanks for use in "sour crude" areas or for extra resistance to all corrosion. This extra-heavy galvanized coating is applied *after* fabrication.
11. SELF-SUPPORTING STEEL STAIRWAYS AND WALKWAYS are made in sectional, interchangeable 4, 6 and 8-foot units. Adaptable for any requirement.
12. ADEQUATE FIELD STOCKS of standard and galvanized MALONEY Tanks, Stairways and Walkways are maintained at all principal petroleum points.

MALONEY Tanks are built to A.P.I. Specifications and are offered in capacities from 100 to 10,000 barrels. See 1937 Composite Catalog.

Packed in Steel-Bound Crates for Export

AMERICAN

MALONEY TANK MFG. COMPANY

38 N. PEORIA TULSA, OKLA.

MALONEY

MALONEY PATENTED BOLTED TANKS

FOR A TRUE RUN

Whatever the length of your string of casing, you may depend on HOWCO Floating Equipment to guide it safely to "port." The success of HOWCO Guide Shoes and Float Collars is written in their own performance record—a 100% perfect record in the difficult casing territory below 9,000 feet! See Page 760 of the Composite Catalog or write for particulars.

HALLIBURTON OIL WELL CEMENTING COMPANY

DUNCAN, OKLAHOMA . . . CALIFORNIA OFFICE: 810 SOUTH SPRING STREET, LOS ANGELES

the OIL AND GAS JOURNAL

PUBLISHED WEEKLY BY THE PETROLEUM PUBLISHING COMPANY AT TULSA, OKLAHOMA

VOL. 36, NO. 10 JULY 22, 1937

P. C. LAUINGER
President

C. O. WILLSON
Editor

W. T. ANDERSON, *Managing Editor* — JAMES McINTYRE, *Consulting Editor*

W. T. ZIEGENHAIN, *Engrg. Editor* — L. G. E. BIGNELL, *Prod. Engrg. Editor*

C. K. FRANCIS, Ph.D., *Technical Editor* — W. L. NELSON, *Metallurg. Editor*

Associate Editors

T. F. SMILEY — DAL DALRYMPLE

D. H. STORMONT — T. P. SANDERS

PAUL REED

District Editors

Houston, *Sterling Bldg.*
NEIL WILLIAMS
GEORGE WEBER — F. L. SINGLETON

Fort Worth, L. E. BREDBERG, *Petroleum Bldg.*
Shreveport, MITCHELL TUCKER, *City Bank Bldg.*

Los Angeles, L. P. STOCKMAN, *Union Oil Bldg.*
Washington, HENRY D. RALPH, *Natl. Press Bldg.*

Saginaw, O. C. PRESSPRICH, *Saginaw News Bldg.*
Denver, T. R. INGRAM, *State Office Bldg.*

New York City, H. STANLEY NORMAN, *415 Lexington Ave.*
Oil City, J. P. O'DONNELL, *Derrick Bldg*

Toledo, G. A. WHITNEY, *P. O. Box 98*
Chatham, Ontario, V. LAURISTON, *Box 136*

•

S. H. ROURKE
Business Manager

M. F. BALDWIN
Circulation Manager

•

Advertising

ERNEST KLAPPENBACH
Advertising Manager

New York City, C. L. CAIN, *415 Lexington Ave.*
Cleveland, HOWARD MARKT, *Leader Bldg.*

Chicago, C. R. FARMER, *300 W. Adams St.*
Tulsa, K. J. LANGLEY, *114 W. 2nd St.*

Houston, WAYNE RIVES, *Sterling Bldg.*
Los Angeles, J. H. TINKHAM, *1406 S. Grand Ave.*

Cologne, Germany
A. J. CHAMBERS

Table of Contents

NEWS DEVELOPMENTS

Summary 19
Sparks From the News 20
Pipe Lines Not to Police Wage and Hour Law —*By Henry D. Ralph* 21
Estimate of Proved Reserves Up to 15,000,000,000 Bbls.—*By J. Elmer Thomas* 23
Cratering Cotton Valley Field Presented Many Difficulties—*By Mitchell Tucker* 24-25
European Technologists Play Important Role in Taking Care of Increasing Oil Demand —*By C. K. Francis, Ph. D.* 26-27
Editorial 28
Geological Structures Mapped in Apache County, Arizona—*By H. Roe* 29
Obituaries 30
New Mexico Commission Hears Engineers From Lea County—*By L. G. E. Bignell* .. 31
Crude and Refinery Summary for First Five Months—1937-1936 35
News From Foreign Lands 37
Pipe Line Activity 38
Refinery Expansion 38
Natural Gasoline 39
Natural Gas News 39

ENGINEERING—OPERATING

Talco Operators Encounter Many Pumping Problems—*By Mitchell Tucker* 42
Deasphalting, Acid Treating of Lubricants With Propane—*By W. H. Bahlke, E. W. Thiele, C. E. Adams and B. Ginsberg* 44
Operating Ideas 51
Methods for Storing Drill Cutting Samples—*By Paul Reed* 53
Problems From Readers—*By L. G. E. Bignell* 56
Technical Questions—*By C. K. Francis, Ph. D.* 59

FIELD OPERATIONS

Field Operations Summarized 61
Michigan—*By Otto C. Pressprich* 62
California—*By L. P. Stockman* 65
Eastern Fields—*By Staff Correspondent* ... 68
Kansas—*By Dal Dalrymple* 69
Gulf Coast—*By F. L. Singleton* 72-73
East Texas—*By L. E. Bredberg* 74
West and North Texas—*By L. E. Bredberg* 75
Rocky Mountain Area—*By Tolbert R. Ingram* 78
Central West—*By George A. Whitney* 82
Oklahoma—*By Dal Dalrymple* 83
North Louisiana-Arkansas—*By Mitchell Tucker* 87
Southwest Texas—*By George Weber* 89
Canada—*By Victor Lauriston* 90
Wildcat Operations ..... 91 to 99

MARKETS AND PRICES

Crude Prices 66-106
Group 3 Market—*By T. F. Smiley* 102
A.P.I. Refinery Report 103
New York Market—*By H. Stanley Norman* .. 103
Tank-Wagon Markets 104
Refinery Prices 105

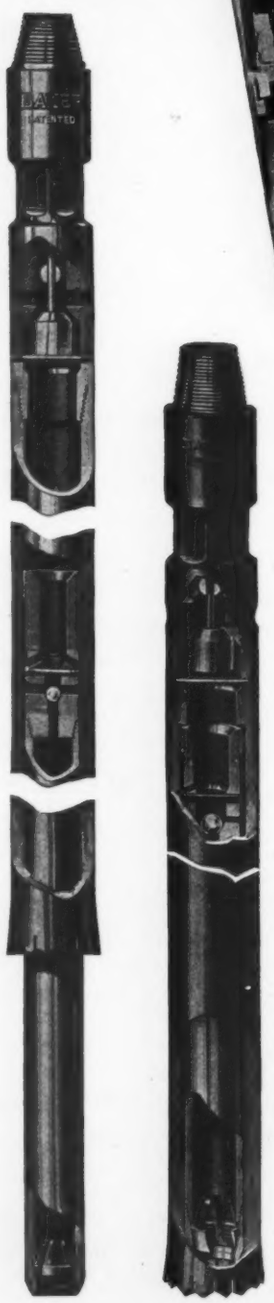
ADDITIONAL FEATURES

Do You Remember 100
Personal Paragraphs 100-101
Record of Oil Securities 107
New and Improved Equipment 108-109
Oil Man's Calendar 110
Classified Advertising 110-111
Advertisers' Index 112

Rates: Domestic, 1 year, $6.00; 6 months, $3.00. Canadian and foreign, 1 year, $7.00; 6 months, $3.50. All subscriptions are payable in advance. Extra copies of special issues are reserved for subscribers' needs and may be purchased by subscribers at the price of 50 cents per copy.

Copyright, 1937, by The Petroleum Publishing Company

To KNOW all about ANY formation THERE IS NOTHING TO EQUAL THIS...



USE IT FOR

- ✓ positive proof as to whether any sand is oil-bearing, water-bearing, or dry;
- ✓ picking up low-pressure sands which may be made productive by shooting;
- ✓ unfailing selection of proper casing locations;
- ✓ determining exact position for perfect water shut-offs;
- ✓ testing as to porosity, saturation and permeability;
- ✓ determining approximate inclination of formations;
- ✓ locating breaks in sands separating oil-bearing from water-bearing horizons;
- ✓ securing cores for exact lithographic and paleographic determination.

Refer to Pages 225 - 232 of the 1937 COMPOSITE CATALOG or ask for the Baker Catalog

and for taking complete, accurate cores there is nothing to equal . . .

BAKER CABLE TOOL CORE BARREL

Eliminates Guesswork

The modern geologist refuses to be handicapped by guessing from bailer samples, or from incomplete cores, and welcomes the Baker Cable Tool Core Barrel because it provides a true sample of the formation, of sufficient size to permit complete analysis.

Easy to Operate

Any experienced cable tool driller will start taking good cores the first time he uses a Baker Core Barrel. There are no complicated adjustments, and by drilling with a slightly slower motion and a shorter stroke than when using a bit, cores are assured.

Popular With Drillers

Coring with a Baker Cable Tool Core Barrel is usually as fast as with straight drilling, especially when new Drill Barrel Shoes are used. Drillers appreciate the ability of this modern core barrel to cut fast, full-gauge hole.

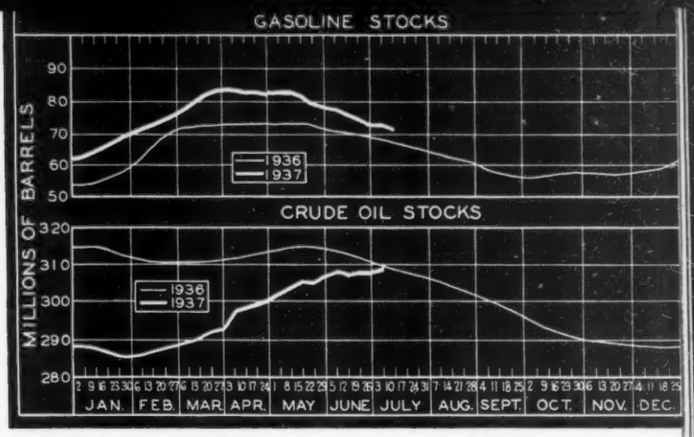
Costs Less to Use

The sturdy, simple construction assures long service, and the high core recovery, combined with other advantages of fast drilling and the full, true cores obtained, all provide the lowest possible costs. You should have complete information in your files—why not let us send you details?

BAKER OIL TOOLS, INC.

Telephone JEfferson 8211 – HUNTINGTON PARK, CALIFORNIA – 2959 E. Slauson Ave.
Telephone WAyside 2108 – HOUSTON PLANT AND OFFICE – 6023 Navigation Blvd.
MID-CONTINENT OFFICE AND WAREHOUSE:
Telephone 2-6983 – Tulsa, Oklahoma – 312 East Fourth Street
WEST TEXAS BRANCH OFFICE Odessa, Texas – Telephone 217
EXPORT SALES OFFICE Rm. 1914 – 19 Rector St., New York City Tel. Digby 4-5818
ROCKY MOUNTAIN HEADQUARTERS Tel. 2280–Casper, Wyoming – Box 1466

Cores tell the "hole" story!



Small Gain in Demand Assured

A SMALL increase in estimated demand for crude oil in August over July was indicated the first of the week in reports of the Bureau of Mines to state proration officials. The Texas recommendation for August will be 1,395,200 barrels daily an increase of 20,100 barrels daily over the bureau's estimated demand for July.

CRUDE PRODUCTION *3,565,197 barrels daily average—up 35,589 barrels.*

CRUDE STOCKS *308,744,000 barrels as of July 3—up 1,065,000 barrels.*

GASOLINE STOCKS *72,546,000 barrels as of July 17—down 1,430,000 barrels.*

REFINERY RUNS *3,415,000 barrels daily average past week—up 90,000 barrels.*

The bureau will recommend an increase of 3,700 barrels daily for August in Oklahoma or a total 633,400 barrels daily. The Kansas recommendation for August will be 200,500 barrels daily, an increase of 4,900 barrels daily. Assuming the same percentage additions for the remaining oil states, the August increase when officially announced will be less than 40,000 barrels daily. While agreeing that the actual demand for crude in August, the maximum gasoline-consuming month of the year, will be greater than in July, there are those, including large purchasers, who insist that officials in certain states should reduce their allowables rather than increase them. One major buying company which takes this position says that crude is "easier than at any other time in the past two years."

This buyer and others point to the spot crude available at scattered points in the Mid-Continent and the Gulf Coast. The entire quantity offered probably is less than 50,000 barrels daily, but it is sufficient to cause concern among companies which have been unable to find ready outlets. These include several buyers who have the crude on their lines and have been placed in the position of having to take crude and run it to storage because their own refinery outlets do not need it and they have been unable to sell it or "farm it out" to other companies.

The situation in parts of Kansas is said to be acute. Pipe-line outlets in western Kansas are limited and a steady increase in production has forced these lines to be operated at maximum capacities. New wells are being completed and questions arise as to where and how the crude is to be marketed. In this connection it is pointed out that the bulk of the increase in national crude oil stocks from June 5 to July 3, amounting to approximately 50,000 barrels daily, is accounted for by the gains in Oklahoma and Kansas.

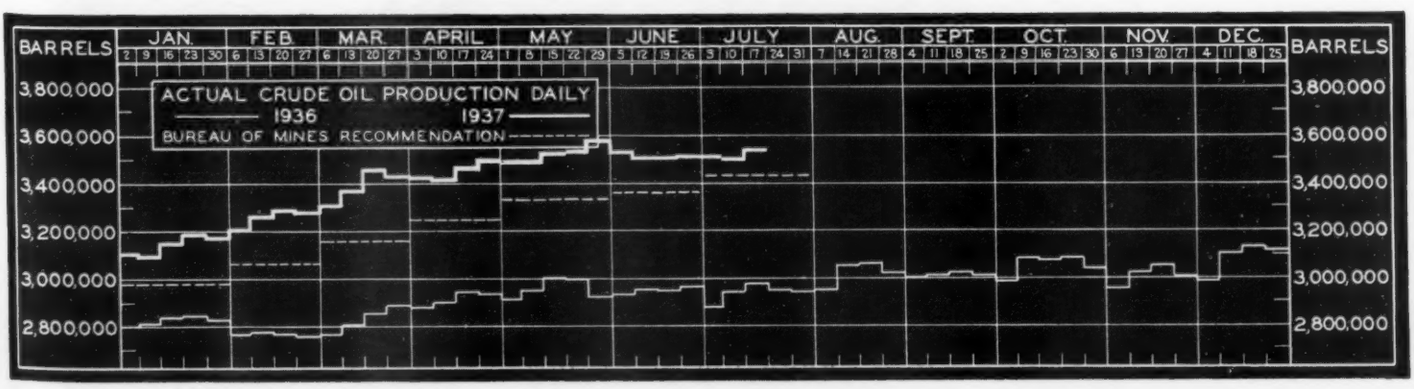
Cases also are cited in New Mexico, West Texas and the Gulf Coast, where there are either no buyers or pipe line companies are taking the oil reluctantly and running it to storage.

Some observers dismiss these developments as "local situations" of no general importance in a market which is absorbing currently more than 3,450,000 barrels daily of domestic crude production.

Daily Average Production for Week

	July 17, 1937	Bur. Mines July est.	July state allowables	July 10, 1937
Oklahoma City	144,775	.....	.....	149,150
Fitts	95,650	.....	.....	85,450
Remainder of State	390,475	.....	.....	383,900
Total Oklahoma	630,900	629,700	629,700	618,500
East Texas	474,700	.....	.....	474,800
West Texas	200,449	.....	.....	199,796
North Central Texas	106,850	.....	.....	106,798
Texas Panhandle	80,548	.....	.....	68,850
East Central Texas	122,498	.....	.....	122,589
Gulf Coast—Texas	333,050	.....	.....	340,947
Southwest Texas	105,198	.....	.....	104,899
Total Texas	1,423,293	1,375,100	1,423,273	1,418,679
North Louisiana	87,325	.....	.....	85,965
Gulf Coast—Louisiana	172,000	.....	.....	168,500
Total Louisiana	259,325	253,000	263,000	254,465
California	668,250	605,500	605,500	667,750
Kansas	197,450	195,600	195,600	192,175
Arkansas	27,895	28,400	.....	28,085
Eastern Fields	122,250	122,100	.....	122,900
Michigan	44,444	39,800	.....	42,792
New Mexico	114,570	100,800	114,500	114,612
Rocky Mountain area	76,820	73,800	.....	69,650
Total United States	3,565,197	3,423,800	.....	3,529,608

Increase, 35,598 bbls. daily.



SPARKS FROM THE NEWS

CROSSROADS

The new Schuler area in Arkansas has reached that stage where the question arises whether it is a field of major importance or just another pool.

ON THE JUMP

Leasing reports since the Friendswood, Harris County, discovery in Texas are indicative of frenzied activity that attends any new oil discovery.

PROGRESS

The chemist, who has produced a virtually trouble-free gasoline, is still busy in his laboratory, and a motor fuel surpassing anything yet seen is said to be a definite prospect.

DOUBLE DOSE

Increasing volumes of water in certain portions of the Talco field are causing operators trouble in addition to those encountered in lifting the heavy low-gravity crude.

COMPETITIVE TRANSPORTATION

Four Oklahoma refiners consider new gasoline line to Mississippi River. Additional evidence of the weakening position of tankcars competing in long-distance hauls.

CONSOLATION

A driller working in 100 plus temperatures may get some consolation from fact that he is now only 36 hours from the north pole, based on airplane flight of the Soviets.

MODEL

Orderly development of New Mexico fields has been outstanding. It has brought suggestions from operators that other states adopt its oil and gas conservation laws and enforcement set-up.

FARTHER AND DEEPER

The search for possible oil structures is expanding in all directions from the proven areas. Consideration is being given to deep sands in Arizona where shallow tests proved dry several years ago.

RESOURCEFULNESS

The successful eight-day fight to control cratering threat in Cotton Valley field is the latest illustration of the industry's resourcefulness and skill. Use of 55,000 sacks of mud indicates the magnitude of the task.

SUPERDROUGHT

Nine Kansas wildcat tests abandoned as dry last week. One who helped pay the bills opines that last year's drought in the Sunflower state went deeper than the most pessimistic predictions.

ANTICIPATING DEMAND

Bureau of Mines estimates combined demand for crude in August in Texas, Oklahoma and Kansas will be 2,229,100 bbls. daily. This is 22,543 bbls. per day below the average production of the three states last week.

NEW GASOLINE RECORD

Pictures, Inc.

Approximately 1,000 gallons of high-octane gasoline from new refining processes were used in the record nonstop flight from Moscow, U.S.S.R., to San Jacinto, Calif.

Pipe Lines Not to Police Wage and Hour Law

By HENRY D. RALPH

Harris & Ewing

Representative Mary T. Norton, of New Jersey, chairman of the house committee on labor

WASHINGTON, D. C., July 19.—Prospects for passage of the Black-Connery wage and hour bill, like everything else, depend upon the disposition of the Supreme Court bill and how soon congress adjourns, but at present its chances are a little better than 50-50. Only a moderate amount of opposition has been expressed by business interests to the revised bill reported by Senator Hugo L. Black, chairman of the senate committee on education and labor, but some labor spokesmen are declaring a vigorous fight will be made to raise the minimum wage and lower the maximum hour provisions, and, if this is done, it will lead to prolonged debate which may further reduce the likelihood of its enactment before adjournment. While the senate committee acted with great speed in reporting out a drastic modification of the administration's draft, the house labor committee has been moving very slowly. The situation there was complicated by the death of Representative William P. Connery of Massachusetts, chairman of the committee and coauthor of the bill. The new chairman is Representative Mary T. Norton of New Jersey, first woman to head a major congressional committee, and while she is sympathetic with labor generally, Mrs. Norton is not such an ardent New Dealer or so strongly prounion as her predecessor. However, the house committee is now at work on the bill and unless an early adjournment intervenes it will probably report out a bill revised very much along the lines of the senate committee draft.

The theory, structure and ostensible purpose of the revised Black bill are the same as those of the original, but it has been very much simplified and limited and takes a different approach to the problem of low wages and long hours. The original bill proposed a complicated series of standards with congress fixing an absolute minimum wage and maximum work week and with the Labor Standards Board authorized to fix other standards of higher wages and shorter work weeks. The revision sets no absolute standards but directs the board to establish standards for each industry under principles set forth in the bill but with the restriction that the board cannot fix wages at more than 40 cents per hour or maximum hours at less than 40 per week. This means that the law will cover only those industries and occupations now having wages far below and hours considerably above the average of all industry and the bill is so worded as to suggest the board may find it advisable to prescribe for many industries minimum wages lower than 40 cents and hours longer than 40 per week. Above these basic standards the board may not go, but the bill states it is the policy of congress that higher wages and shorter hours be negotiated between workers and employers through collective bargaining or otherwise. While still having broad powers, the board could issue no orders until after public hearings and the report of industrial advisory committees which it is required to appoint, although of course the board would not be bound by the evidence from these two sources. The board could permit employment for more than the maximum work week on payment of time and one-half for overtime or in special cases such as emergencies, breakdowns, and peak operating periods. The board may classify occupations so that the same wage and hour standards would not necessarily apply to all workers in a single plant, and could also make other differentials according to location, size of community, or other classifications.

Harris & Ewing

Senator Hugo L. Black, of Alabama, chairman of the senate committee on labor

The original bill proposed to exempt employers of less than a certain number of persons, the exact figure never being supplied, but this exemption was dropped from the bill as reported so it now would apply to all employers producing goods to be shipped in interstate commerce, a change which is important in its application to stripper well operators and other small employers. It is significant the senate committee removed all provisions intended to put teeth in the Wagoner labor relations act, such as prohibitions against the use of strike breakers or industrial spies.

Enforcement of the wage-hour act would be placed entirely in the federal courts and purchasers and handlers of goods would not be made responsible for goods handled in good faith which may have been produced in violation of the law. Apparently officials of oil pipe line companies have been under the misapprehension that they would have to help enforce the law by refusing to handle oil until they had determined whether or not the producers were complying with established labor standards. This impression apparently was gained from section 7 of the revised bill which reads: "It shall be unlawful for any person, directly or indirectly, to transport or cause to be transported in interstate commerce, or to aid or assist in transporting, or obtaining transportation in interstate commerce for, or to ship or deliver or sell in interstate commerce, or to ship or deliver or sell with knowledge that shipment or delivery or sale thereof in interstate commerce is intended, any unfair goods," the term unfair goods being defined as those in the production of which employes have been employed in any occupation under any substandard labor conditions.

However, section 20 of the revised Black bill states "No provision of this act shall impose any liability or penalty upon any common carrier for the transportation in interstate commerce in the regular course of its business of any goods not produced by such common carrier, and no provision of this act shall excuse any common carrier from its obligations to accept any goods for transpor-

tation." Under the usual rules of statutory interpretation it would appear that section 20 completely relieves pipe lines from any responsibility for enforcing the act, except, of course, that their own employes would come under the wage and hour standards fixed by the board and also any oil or products produced by the pipe line companies themselves would have to be produced in accordance with established labor standards. Except as regards their own employes and their own production, section 7 apparently would apply to pipe line companies only if they assisted in a conspiracy to violate the act by transporting oil which they knew was "unfair" within the definition of the law.

One provision added by the senate committee deals with competition from imported articles and permits the U. S. Tariff Commission, on application of any interested party, to investigate the differences resulting from the operation of this act in the cost of production of any domestic article and of any like or similar foreign article. This provision is not of great importance, however, since the commission is directed to follow its present procedure under the flexible provisions of the tariff act which since 1920 has given it authority to make similar investigations of the cost of producing domestic and foreign articles and to recommend that the president change the applicable duties. The commission presumably would have the same power without any specific provision in the Black bill, and in any event a recommendation from the tariff commission is advisory only and does not obligate the president to increase or decrease any duty rate.

Robinson-Patman Orders

First orders under the Robinson-Patman price discrimination act passed 13 months ago have just been issued by the Federal Trade Commission. In simultaneously dismissing two complaints and issuing two cease and desist orders, the commission established some precedents which indicate the way in which it will apply this complicated law to business generally. Orders were issued against the Biddle Purchasing Co. involving the so-called hidden brokerage prohibition of the act, and against the Hollywood Hat Co., Inc., involving price discrimination among various purchasers. The cases dismissed were against Kraft-Phenix Cheese Corp. and against Bird & Son, Inc., Bird Floor Covering Sales Corp., and Montgomery Ward & Co., both cases involving price discrimination.

The precedent in the Biddle case probably has little application in the oil industry but is of great importance in the grocery and food trades. The Biddle company operated as a food broker and the commission found its brokerage fees always reached the buyers and in effect were actually paid by the seller to the buyer, which resulted in giving the buyer a discount in price forbidden by the act. The principle established in the Hollywood Hat case, however, is of general application. Here the company had one large customer, a retail buying syndicate for millinery stores, and this company was given prices substantially less than the prices to individual retailers who were in competition with the large customer. The commission found this difference in price was not accounted for by differences in cost of manufacture, sale, or delivery, or any other exception provided for in the act, and it might have the effect of injuring, destroying, or preventing competition between the customer who received and those who were denied the benefit of the discriminatory price. Such a situation is just what the R-P act was designed to stop and the order in the Hollywood Hat case was not unexpected; the only significant point is the commission made a study of the cost of making and selling hats in different quantities and concluded in this case the price differential was greater than the actual differences in cost.

The Bird-Montgomery Ward case, involving the sale of linoleum, was dismissed because the Bird concern had discontinued selling directly to retailers and now sells to jobbers and to mail order houses on the same price schedule. For a short time after passage of the R-P act and during the change in its sales policy, the Bird companies did charge retailers higher prices than paid by Ward, but the commission concluded this brief technical violation of the act was so inconsequential it need not take action.

In addition to indicating that the commission will not concern itself with trivial or transitory price discriminations, this case is important in that the commission laid down the rule that under the act the Bird company has the right to select its own customers and it was within the law in refusing to sell to retailers and confining its sales to jobbers and to concerns like mail order houses which buy in lots comparable to those purchased by wholesalers.

Most interesting of all is the commission's opinion in dismissing the case against Kraft-Phenix Cheese Corp. This company has a nation-wide system of distributing packaged cheese and similar products to retailers, using both its own warehouses and local wholesalers or jobbers. The commission's opinion goes to considerable length to establish its jurisdiction over the company's business on the ground there is a continuous flow of cheese from the factory to the retailers, assisted by the company's advertising and promotion plan, so that interstate commerce is involved in every step of the distribution. This may be stretching old legal theories as to the limits of interstate commerce, but it is in keeping with the intent of the R-P act and of most New Deal legislation, and it indicates the commission will fight any attempt to restrict the act on constitutional grounds but will insist on applying it to all commodities given an interstate distribution even though local jobbers technically have title to the goods during one step of their distribution. The company had been charged with price discrimination chiefly because retailers buying $5 or more at a single order obtained a 5 per cent discount. The commission analyzed the company's distribution methods and costs and concluded this discount was justifiable on the basis of differences in cost, as permitted by the act, and also it did not appear to be affecting retail prices, hampering competition, or injuring small dealers.

In general, the conclusions to be drawn from the four R-P orders are that the trade commission intends to make a thorough investigation of the facts involved in every complaint and to dispose of each case according to its individual merits rather than laying down arbitrary rules applicable to all distributors. Where prices differ among customers the test of legality is whether there actually is injurious discrimination among competitors and which is not accounted for by differences in cost of distributing different sized lots.

I.C.C. Truck Regulations

Tentative safety regulations covering truck transportation of petroleum products, liquefied gases, explosives and other dangerous articles have been issued by the Bureau of Motor Carriers of the Interstate Commerce Commission, and all interested parties are invited to submit comments and criticisms by August 15. The regulations are designed to apply to the operation, loading and equipment of all motor vehicles operated in interstate or foreign commerce by common, contract, or private carriers, which means they will cover the operation of trucks by companies hauling their own products. They supplement existing regulations of the I.C.C. covering the packaging and labeling of dangerous articles for shipment by rail, truck or water. For the purpose of these regulations dangerous articles are classified as dangerous explosives, less dangerous explosives and inflammable liquids, corrosive liquids, and relatively safe explosives, and all trucks carrying any products coming in the first three classifications must bear appropriate labels on the front, rear, and both sides. These labels may be painted on the trucks permanently or they may be the standard I.C.C. warning labels reading "explosive," "inflammable," etc. Shipping papers must also disclose the nature of the commodity and the kind of label required.

In general, the proposed regulations follow what would be considered customary safety practices. For example, a vehicle may not be loaded while the motor is running and without the brakes set, broken or leaking packages may not be accepted, packages of inflammable and corrosive materials may not be mixed, tanks and drums of inflammable liquids may not be completely filled but must retain an outage of free space for expansion of at least three-fourths of 1 per cent of volume. Among the driving rules are requirements that trucks carrying dangerous articles shall not run past fires along the highway, shall stop before crossing railroad tracks, and shall avoid congested traffic as much as possible. Smoking or carrying matches on trucks carrying dangerous articles is prohibited, and when such trucks stop on the highway prescribed lights and warning signals must be shown.

Thanking

YOU!

Once more you Journal subscribers have demonstrated your confidence in "The Big Yellow Book." Six months ago you gave the Journal the highest renewal figure in its history, 80.94%—a figure surpassing its nearest competitor's by 10.71! Now, for the period ending with June, you have handed us a still higher figure, another renewal record for the Journal.

It gives us pleasure to thank you publicly for this very fine support. It will yield us far more pleasure to continue to show you, through the steadily improving quality of the Journal, that your confidence in "The Oil Man's Bible" is well warranted. Such constant faith is an inspiration to the entire Journal staff!

Estimates of Proved Reserves Up to 15,000,000,000 Bbls.

By J. ELMER THOMAS
Petroleum Analyst, Fort Worth, Tex.*

The proved reserves of crude petroleum in the United States as of January 1, 1937, were estimated[1] at 13,063,000,000 bbls. of the standard 42 gallons. This is believed to have been a rather conservative estimate and the writer suggests a figure of 15,000,000,000 bbls. for the fields now known.

The estimate was prepared by a committee of geologists, geophysicists, and petroleum engineers chosen by the American Petroleum Institute. Its members were selected to give representation to those best acquainted with all of the pools in the several petroliferous provinces in the various parts of the country. In assembling its figures the committee had access to the data and judgment of numerous men with specialized information on each particular area so that it may be said that more than 100 men participated in this compilation.

Two years ago a similar estimate of reserves was prepared[2] as of January 1, 1935, for the American Petroleum Institute by a committee composed of the past-presidents of the American Association of Petroleum Geologists whose findings were subsequently revised, particularly with respect to the very recent discoveries, by the same personnel preparing the 1937 estimate. The details of the two estimates by states are here appended.

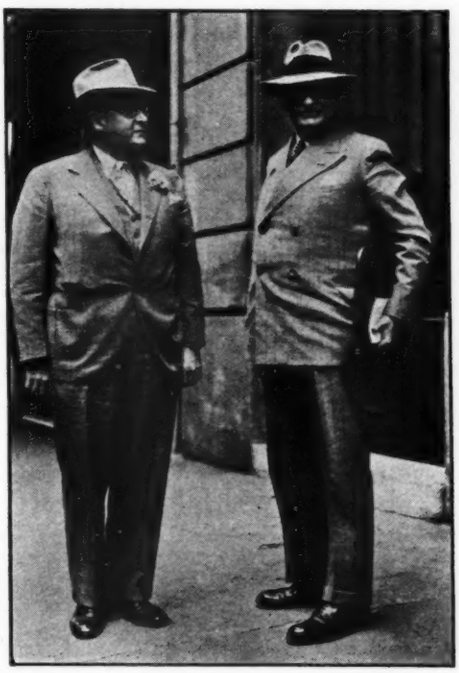
ESTIMATE OF RESERVES

(Figures in millions of barrels)

State—	Jan. 1, 1935 (revised)	Jan. 1, 1937
Western:		
California	3,261	2,956
Rocky Mountain:		
Colorado	16	15
Montana	102	92
Wyoming	267	239
Central-Southwestern:		
Arkansas	103	84
Kansas	390	568
Louisiana	513	524
New Mexico	451	471
Oklahoma	1,235	1,141
Texas	6,643	6,422
Eastern:		
Illinois	37	28
Indiana	5	3
Kentucky	50	39
Michigan	64	44
New York	75	66
Ohio	40	32
Pennsylvania	340	307
West Virginia	40	32
Total United States	13,632	13,063

It should be emphasized that the figures tabulated here refer only to the oil reserves from known producing horizons in fields now developed and recoverable by operating methods now in use. They do not make allowance for any additional supply which may be obtained from known, comparable, untested structures in the vicinity of those now producing, or for other prospective productive horizons which subsequently may be developed in fields now producing, or for enlarged ultimate yields which may be recovered by improved operating methods, or for the vast supply of petroleum and its products definitely available in the enormous oil-shale deposits, or for the petroleum products which will one day be obtained by the hydrogenation of coal.

The Bilibin method[3] seems to afford a convenient classification for data bearing upon the complex problem of estimating future oil reserves. It is the practice of American engineers engaged in this work to apply those same considerations to the data so far as the producing and proved (by completed wells) areas are concerned. As to the untested potentialities of probable and possible



J. Elmer Thomas and Dr. Van der Gracht, The Hague, chairman Dutch delegates, at World Oil Congress, Paris

areas, even with any well considered arbitrary, mechanical, or mathematical measuring stick, the human element nevertheless would introduce such variable factors that a ready comparison between districts, between states, or between countries would be somewhat questionable. Possibly, if some group of men equally well informed about the geology, geophysics, and petroleum engineering in all areas of all countries were able to devote their time to the problem of estimating the petroleum reserves of the world, comparable results for the various nations might be obtained. But, perhaps there is no such group of men.

Supply *per se* is not a finite quantity; supply-at-a-price is the consequential term and the supply which would be secured at any given price range will differ from that at any other price levels. To carry far into the future—and much of these reserves will only be recovered many years from now—speculation as to future petroleum prices would also involve speculation as to future material prices, labor costs, and such other intangibles as future technical improvements. The writer believes that no useful purpose would be served by such studies at this time.

If we were also to give consideration to known favorable structures as yet untested, or to potentially productive territory not yet examined, or to deal with probabilities and possibilities in an attempt to evaluate such prospects in terms of barrels, these together with the definite reserves-at-a-price contained in oil shales and coal deposits, a figure for total future supply would result several times the 13,000,000,000-bbl. estimate here cited for the United States.

For more than 50 years the pastime of indulging in such estimates has been followed by various groups or individuals in the United States more or less qualified to discuss the subject. The earliest estimates were notably understatements; in fact, it frequently occurred that a new estimate would note that all the reserves postulated in earlier estimates already had been recovered. This has not been true since 1923, when the American Petroleum Institute's Committee on Supply reported.

Of course the earlier estimates of necessity were based on meager data, with depths of drilling now attainable then unknown, and with certain important petroliferous provinces then untested. It follows naturally that subsequent estimates, predicted on more and better data, have reached closer approximations of the then known reserves. And yet it follows logically that these later and better estimates eventually will be found to be too low. An engineer inevitably deals with what he knows and sees and not with what he thinks and believes. The writer hazards the opinion that each member of the committee which prepared the latest estimate cited feels privately its total will be doubled, and perhaps a higher multiple will be realized.

A word on future discoveries in the United States may conclude this statement. Past discoveries have been ably analyzed by Wallace E. Pratt[4] who finds that our rate of oil-finding between 1900 and 1930 was uniformly accelerated coincident with the expanding use of automobiles and their requirements for motor fuels. Though geological exploration was responsible for most discoveries, that has passed its peak and since 1930 geophysics has been in the ascendancy; but as its current finding rate seems insufficient to increase or maintain known reserves, greater attention soon will have to be given to an intensive search for "stratigraphic traps," a more difficult and expensive type of exploration.

---

*Presented before the Seventeenth International Geological Congress, Moscow meeting, July, 1937. Preprinted by courtesy of the August Bulletin of the American Association of Petroleum Geologists.

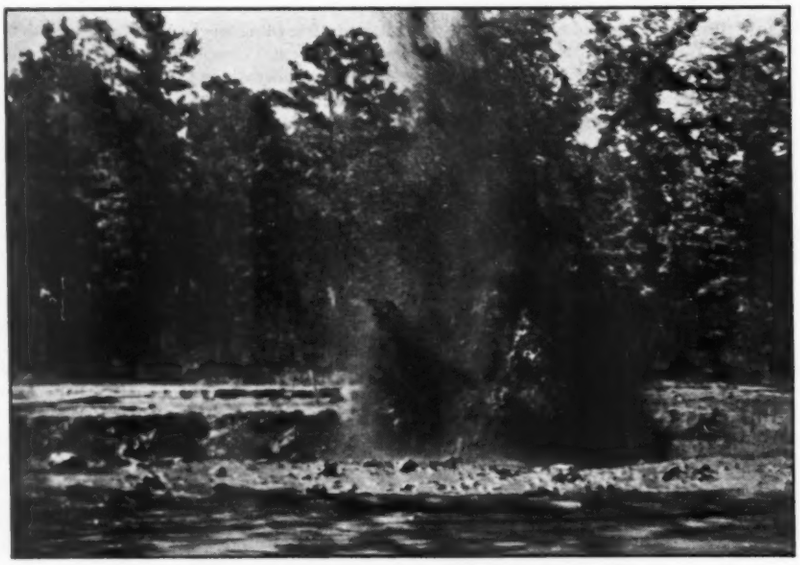
[1] "Report of the Committee on Petroleum Reserves," Amer. Petrol. Inst. Quarterly, Vol. 7, No. 2 (April, 1937).
[2] "Report of the American Petroleum Institute Special Committee on Production and Supply," Bull. Amer. Assoc. Petrol. Geol., Vol 20, No. 1 (January, 1936).
[3] V. V. Bilibin, "Method of Estimating Underground Oil Reserves," Problems of Soviet Geology, Vol. 6, No. 1 (January), pp. 34-42; Vol. 6, No. 2 (February, 1936).
[4] Wallace E. Pratt, "Discovery Rates of Oil Finding;" Bull. Amer. Assoc. Petrol. Geol., Vol 21, No. 6.

Cratering Cotton Valley Field Presented Many Difficulties

By MITCHELL TUCKER

SHREVEPORT, La., July 19.—The recent cratering in the Cotton Valley field of northern Louisiana, resulting from a leak in casing at an 8,500-foot well in the 3,300-pound gas-distillate horizon, presented many problems during the eight-day fight to bring it under control, 55,000 sacks of weight material being used.

The accompanying map illustrates position of the 8,500-foot well from which gas was escaping, and the two shallow wells where channeling was established. Ohio Oil Co. No. 2 A. J. Hodges, in which a leak in 7-inch casing was later discovered at 308 feet, was completed on June 4, 1937, at a total depth of 8,517 feet. New 7-inch O.D. 30-pound oil string was cemented at 8,490 feet and perforated with 10 shots between 8,158-62 feet opposite the prolific Bodcaw gas and distillate sands, initially gauging 470 bbls. of distillate and 4,000,000 feet of gas per day, tubing pressure 3,100 pounds, casing pressure 3,200 pounds.



The crater in action

On July 1 a 4,737-foot producing well 1,520 feet south of Hodges No. 2 began to show a marked increase in pressure between two strings of casing, and the evidence of gas breaking through was apparent. Immediately 900 sacks of mud was mixed and pumped into the hole, killing the growing pressure and stopping a crater at this point.

A checkup of nearby wells was begun to determine the source of this outside pressure, and it was discovered that the Hodges No. 2 one location to the north had very quickly dropped from a rock pressure of 3,200 pounds to 1,200 pounds, indicating something was radically wrong with the well. A pressure test was made of the 9⅝- and 7-inch casings. Water would disappear into the formation as fast as it could be put in with pumps.

Early on July 2 an abandoned 4,409-foot well one location (1,520 feet) to the west began flowing mud, water and gas. By 7 a.m. on that date a crater had begun, throwing boulders, water and mud about 25 feet into the air.

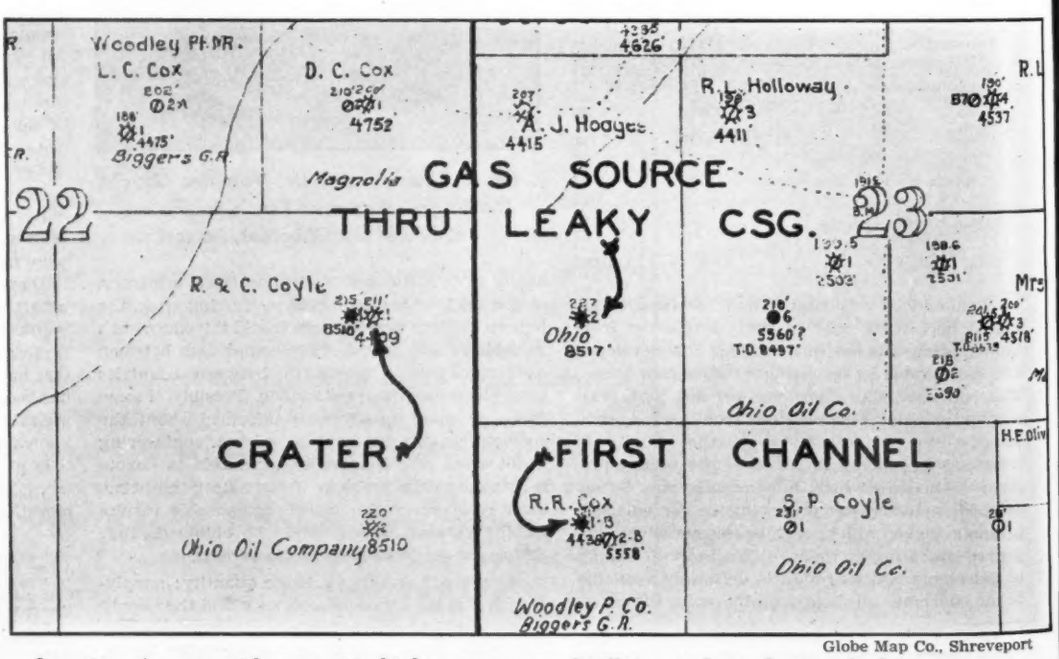
Mud was moved in from all available sources of supply, and after hooking up Halliburton trucks, a total of 12,000 sacks of mud and 500 sacks of bran was pumped down through the 9⅝- and 7-inch casings. A total of 2,000 sacks was pumped through the tubing, but there was an apparent suction through this channel, indicating that mud through the tubing was not getting to the high-pressure formation, so that means of killing the well was discontinued. Thirty minutes after bran was used in the mud down the casings it could be seen blowing out of the crater some 1,520 feet west.

During this same time an attempt was made to pour gravel into the crater, but it was spreading faster than the gravel could be trucked in, so that idea was abandoned. At one time it was estimated gas was blowing out of the crater at the rate of 300,000,000 feet daily.

About noon July 4 the crater almost died, and remained inactive for about two hours, when it slowly began to increase again. At that time the floor of the crater was 25 feet deep. As the bubbling increased and the water level was noticeably rising, it was decided to abandon the use of trucks as they could not handle the large volumes apparently necessary, and construct a large mud pit and use slush pits operating in compound.

Accordingly, a 1,300-bbl. capacity mud pit was dug on July 5. Five mud pumps were set, four were of the heavy duty type in deep drilling use at Cotton Valley, size 15½ by 8½ by 20-inch, and one was a 14-inch pump used for the mud gun to stimulate and mix the fluid.

When the first pit of mud was mixed and ready for introduction, the pressure was bled from the tubing on Hodges No. 2 to a flare, and dropped



Globe Map Co., Shreveport

Location of crater with respect to high-pressure gas-distillate producer having leaky casing

Slush pump hook-up, showing four large size pumps compounded, and one medium size pump used for the mixing of mud

rapidly from 800 pounds to zero, during which time the mud was put back between the 9⅝- and 7-inch casing. After about 600 bbls. had been pumped in, the crater began to show signs of dying down. Throughout July 6 a total of three pits, or 3,900 bbls., of 15.2-pound per gallon weight mud, at an average viscosity of 25, was pumped at 2,500 pounds pressure through the compounded slush pumps, including the addition of 900 sacks of bran, and some rice and cotton seed hulls. Over 100 men were engaged in dumping and mixing this mud.

On the following morning, July 7, the fluid level in the crater began to rise again. Diameter of the hole had reached about 100 feet, with a depth of about 65 feet. It had spread to within 25 feet of Ohio Oil Co. No. 2 R. M. Coyle, another 8,500-foot gas-distillate producer, and steps were quickly taken to kill this well with mud and lay up a bank of sacks around it for protection.

Ran Out of Mud

At about this stage the fighters ran out of mud, as all available supplies from Lake Charles, Rodessa, and East Texas and other accessible points had been exhausted, and large amounts had been trucked in from Houston and received by rail. That morning four cars arrived in the Shreveport railroad yards, and Pelican Well Tool and Supply Co., in cooperation with the L.&A. Railroad, quickly assembled them and ran a special train to Cotton Valley so that only a minimum delay resulted from the exhausted supply of weight material.

After arrival of a new supply of mud, and the mixing of a new pit to weight and viscosity specifications, an additional 1,300 bbls. were pumped down between the two strings of casing, during which time pressure from both the casing and tubing was being bled. Also, all nearby producing wells from the 8,100-foot Bodcaw sand were being blown in an effort to reduce the pressure on the Hodges No. 2.

On July 8 definite evidence was seen that the crater was dying, and about two-thirds of a pit of heavy mud was pumped through the tubing and, after 20 minutes, pressure on the mud pumps dropped from 2,500 to 1,500 pounds, indicating the mud was finally going back into the high-pressure formation, and killing the well.

On final checkup it was found a total of 55,000 sacks of Baroid, Colox, Aquagel, and Jellox had been used during the eight-day fight.

The Hodges No. 2 well is cased with surface pipe at 787 feet, cemented to top; 9⅝-inch at 5,876 feet, and 7-inch cemented at 8,496 feet. On July 13 tubing was pulled and casing tester run in the 7-inch to discover the split at 308 feet. About 80 points was taken in an effort to pull the pipe from 308 feet, but it would not budge, indicating there was a split and not a break in the casing.

The travel or channeling of the gas from the Bodcaw sand out through the perforations in 7-inch casing, up through annular space between casing and tubing, and out the split at 308 feet into the annular space between the 9⅝- and 7-inch casing is clearly established, but its movement from that point to the crater some 1,520 feet westward is not yet determined. There are several possible paths known. This field has produced oil and gas from the Blossom sand at 2,500 feet, from a section near the base of the anhydrite or at 4,300 feet, and in the Davis formation of Lower Glen Rose at about 4,700 feet, where the cratered well was bottomed. The gas either escaped into one of these formations through a break in the 9⅝-inch casing or through a defective cement job on the same string. Hodges No. 2 well will now be cased to bottom with 4½-inch pipe and recompleted as a producer.

Thompson Indicates Increased Allowable in Texas

AUSTIN, Tex., July 19.—Commissioner Ernest O. Thompson indicated at the Railroad Commission's monthly proration hearing that the Texas allowable for August would be larger than for July.

The Bureau of Mines estimated the daily demand during August for Texas crude would be 1,395,000 bbls., an increase of 20,100 bbls. over the July estimate. The commission reported allowable production of 1,423,273 bbls. on July 17, an increase of 37,797 bbls. from the basis July outlet due to completion of 619 new wells.

Purchasers filed nominations for 1,657,313 bbls. daily next month and estimated September needs at 1,669,741 bbls. with demand rising to 1,695,305 bbls. in December. August nominations were 39,899 bbls. higher than the July total, with 14,216 bbls. of the increase sought from West Texas fields.

Purchasers calculated that 938,165 bbls. of the amount nominated for next month would be converted into products; 716,900 bbls. would be sold as crude and 2,248 bbls. would be used as heating oil.

Colonel Thompson reviewed the bureau's report to the Interstate Compact Commission of 308,200,000 bbls. in storage May 31 with a March 31 calculation showing that of oil in storage 93,000,000 bbls. had been produced prior to January 1, 1936, and 205,000,000 bbls. since. Deduction of oil in pipe lines, in tankers and refining working stocks, he said, reduced the amount available for use to a scant 197,000,000 bbls.

There is an average of 97 days' supply in storage, the bureau found. Citing 205 days' supply of other states' crude above ground and 133 days of Oklahoma crude, Colonel Thompson said "it seems reasonable to draw the conclusion that Texas should be more in line; in other words, we have too little crude above ground." Texas did not want to be in the position of "having too little crude for our customers."

Markets for crude are daily increasing and expanding, he said, pointing to the new market for fuel oil as represented by 1,500,000 units needing 90,000,000 bbls. Diesel engines also are requiring more oil, and gasoline consumption is 11 per cent over 1936.

Inside of crater after killed; note nearby gas-distillate producer in background only 25 feet from growing crater

William G. Johnston, Oklahoma City oil producer, and Dr. C. K. Francis, technical editor, The Oil and Gas Journal, ready to descend 1,200 feet into the oil mine at Pechelbronn

European Technol o
in Taking Care of

By DR. C. K. FRANCIS
Technical Editor

I have come back from Europe, where I went as a delegate to the World Oil Congress in Paris, with a renewed admiration for the ingenuity and thoroughness with which the people of other lands are making the most of limited resources and with a heightened sense of gratitude that nature has been so generous to our own country.

Here in the United States, where a garage goes with every dwelling, we fume and splutter if we have to wait till next year to get a new car. Over there you see few cars or motor trucks outside the large cities. Only the well-to-do can afford to buy an automobile or the gasoline to run one. Any car costs about twice as much as it would here. And with 35 cents a gallon the bottom price for gasoline, it is easy to understand why the bicycle provides the popular method of travel.

Bicycles everywhere. Swarms of them. Workmen threading their way through traffic to their places of employment. Professional men—lawyers, doctors, ministers—sedately pedaling along, carrying brief-case, instrument-case or other insignia of their calling.

It must not be supposed the European will be content forever with his bicycle while he looks across the water and sees the carpenter, bricklayer and common laborer joining the accountant, bank teller and floorwalker in the daily sport of trying to find a parking place. Some of the world's profoundest scientists in France, Germany, England and other European countries are centering study and research on the problem of producing an inexpensive motor fuel which not only will widen the use of the automobile in peace time, but in case of war will place these less favored nations more nearly on a parity with those which have great petroleum reserves.

The American, accustomed to flit about in his own car, is likely to be perplexed by the problem of how to get from here to there and back again when he is in London. So much delay attends taxicab service in London, because of the congestion due to autobuses, that American visitors often discover they save time and temper by walking. The Paris taxicab driver is perhaps without an equal as an expert driver and in point of craftiness when an inexperienced American falls into his hands. I was standing nearby one day when an American delegate to the oil congress realized he was being outrageously overcharged by a taxicab driver. The driver responded to the other's protests with a shrug and an expression of pain that his patron should be so unreasonable. His expostulations vain, the American convulsed English-speaking onlookers by adopting the French manner. Smiling blandly, he extended upturned palms and bowed apologetically while he told the driver: "You dirty, thieving pirate, I'd like to choke you to death and then run your damned taxicab back and forth over your carcass." The driver, believing he had accomplished a feat of diplomacy, smiled, bowed and drove off.

One day when I took a taxicab to the Maison de la Chimie to attend a session of the congress, soldiers were diverting traffic because of some demonstration in the streets. There was an exasperating delay in getting to the meeting place. While there, however, I received a gilt badge which showed I was a delegate. I pinned the badge on my coat, and when I boarded a taxicab later to go to my hotel the gendarmes still were closing many streets to traffic. But this time the driver, impressed by my gilt badge, said something to a soldier about my high rank. I caught the words, "Monsieur distingue." I straightened up and tried to look the part. An officer was called. He looked at my badge, bowed obsequiously and ordered the gendarmes to let us through. I nodded to him loftily as I thought with an inward chuckle, "I wish the fellows back home could see this."

The outlook of leading petroleum technologists in Europe was well expressed by Louis Pineau, honorary president of the congress and director of the department of combustible liquids in France, when he said at the opening session: "When you consider the magnificent technical improvements made in late years in the production, exploitation, refining, utilization of fuels and their adaptation to automobiles and automotive traffic, whichever way you turn as you look into the future you find solid ground for complete trust in the development of the petroleum industry."

Col. Louis Pineau, honorary president of the Congress

May Be Some Bargains in Used Bicycles

"There'll be a lot of second-hand bicycles for sale if they do," said Dr. Francis when asked upon his return from the World Petroleum Congress if the people of Europe would become as motor-minded as those in this country, with its more than 22,500,000 car owners.

Dr. Francis, who dodged bicycles in various cities, was asked to set down some of the reactions gained in his trip, which included visits to points in England, Germany, Belgium and Holland, besides Paris, where the oil congress was held. He reported the sessions of the congress in The Oil and Gas Journal of June 24. In this article he supplements that report with observations on certain phases of his trip and comments on the congress.

The congress was exceptionally well attended, with representatives from nearly every country in the world. There were about 2,000 delegates, far exceeding the plans and expectations of the officials, which resulted in some confusion, owing to the difficulty in arranging the lists, mail boxes, and seats for such a large number. But, like all matters handled in France which may appear to be confusion to the American, in most cases it is the system whereby finally results are accomplished that was in this instance so remarkable. The papers presented were of unusually high merit. Because of the large number of papers, approximately 500, it was impossible, because of lack of time, to have each paper presented in full.

The work of the congress was divided into five sections: (1) Geology and Exploration, under the presidency of M. Galliot; (2) Physics, Chemistry and Refining, directed by Prof. Henri Weiss; (3) Material and Construction, under M. Chove; (4) Technology and Utilization, under the direction of M. Dumanois, and (5) Economics and Statistics, directed by M. Mercier. The papers for each section were thoroughly studied by an expert and then summarized as a whole for presentation before the section and served to guide the discussion.

The larger number of papers were discussed in the section devoted to physics, chemistry and

ogists Play Important Role

Increasing Oil Demand

refining. I had the honor of being elected president of this section for one day of the congress. The section devoted to geology considered the papers presented under the head of general reports, pure geology, geophysics and explorations. This section has proposed that geological standards be established on an international scale so reports and papers with symbols may be presented in standard form and therefore intelligent to all geologists wherever located. Numerous papers in this section were naturally devoted to the remarkable development in the use of scientific instruments for locating promising oil structures.

The synthetic handling of petroleum fractions is receiving just as much attention in Europe as it is in the United States. It was declared by several of the authorities that petroleum is today where coal tar was nearly a hundred years ago, and during the next few years it may be expected that any desired product of the petroleum hydrocarbon type may be manufactured. Various alcohols, including ethyl alcohol, are now being prepared on a commercial scale and of course the chemist may proceed to any desired product when once alcohol has been made. The utilization of gases, particularly in combination with cracking and polymerization, is the foundation for remarkable constructive work. It appears that in the near future we may expect a selective product to be produced for motor fuel that will be superior to our finest gasolines of today.

Photos Courtesy of P.T.

H. F. Worley, Tulsa oil producer, and A. P. Cotherall, petroleum technologist

It is easy to understand why technologists in certain European countries are bending every effort in the direction of making a superior gasoline at low cost. Little oil is produced in continental Europe, so they must depend for oil and its products on other countries. Import duties are so high, particularly on finished products, that the common practice is to import such oil as is necessary and refine it on its arrival. France imports large quantities of crude oil from the United States and processes it in her own refineries. Much East Texas crude, excellent material for gasoline, has been going to France. To operate automobiles at a cost that is not prohibitive the highest possible mileage must be obtained from each gallon of gasoline. And all the time the chemist is working feverishly to produce a cheap substitute for the present gasoline or to hit upon a different fractionation that will yield more power while using much less of the raw material.

Drilling in Germany

Since 1934 the German Reich has been promoting wildcat drilling with a view to opening up oil wells, granting subsidies by way of loans toward such work of exploration, the loans to be repaid in case of oil being discovered. From April 1, 1934, to April 1, 1937, test wells having an aggregate depth of 166,000 meters have been sunk, 162 holes have been finished, 22 tests are under way, and 15 new tests are planned. By this systematic drilling activity, which has been combined with an extensive research into all geophysical, geological and technical conditions, nine new oil fields have been discovered, five of which are in Hanover-Brunswick, one in Slesvig-Holstein and three in the Baden sector of the rift valley of the Rhine.

In the section of the oil congress on physics, chemistry and refining (over which I had the honor to preside), under the the general presidency of Professor Weiss of Strassburg, the chief discussions related to the utilization of petroleum gases, cracking, polymerization and syntheses. Special methods of treating and purification appear to have put the well-known doctor method into the discard. Copper, zinc and special sulfides were suggested as more efficacious.

Interesting work under the direction of Professor Weiss at Strassburg on the naphthenic acids illustrates what may be done with the cheap fuel oils. It was predicted that products from the naphthenic acids will be of immense value to commerce. M. Dumanois has been well known for many years for his research within the field of detonation. The chief discussion related to this property of motor fuel. Discussion was presented by Bourlage, De Brey, Le Coent and other well-known authorities. The progress in the development of a knock-testing machine appears to have been satisfactory. The Europeans are interested in obtaining a superior motor fuel not only for automobile but for aircraft use. There is a growing demand for an absolutely pure product of exceptional octane rating. However, in the efforts to obtain high octane rating fuel, the other desirable characteristics must not be lost sight of. The European laboratories are probably more critical than we are in America about the essential properties of a high-grade motor fuel.

James Kewley, Asiatic Petroleum Co., Ltd., and Dr. A. E. Dunstan, National Oil Refineries, Ltd.

In the section on material and construction, under the direction of M. Chove, the subject of corrosion was the principal one discussed. Developments in the composition of metals, preparation of special alloys, and means for protecting metals used under varying conditions in the petroleum industry were important topics.

The section on economics and statistics, under the direction of M. Maurice Mercier, directed attention to the importance of nomenclature. The report was presented giving the definitions of oil terms in three languages, English, French and German. This report contained 3,500 words and was examined with interest by members of the congress.

Of particular interest to me was the excursion, taken by a large number of delegates, to the oil-mining operations at Pechelbronn. This property is reported to have been producing oil and has been a commercial enterprise since 1735. At this time there are in operation oil wells, oil mines and a complete refinery. After a preliminary lecture by Rene Schaebele, chief geologist at Pechelbronn, the party was conducted through a portion of the property and the refinery. They then were reassembled and escorted to the clubhouse, where one of those luncheons which have become famous

(Continued on Page 30)

the OIL AND GAS JOURNAL

PRODUCING REFINING NATURAL GASOLINE PIPE LINE

Published weekly by The Petroleum Publishing Company at Tulsa, Oklahoma

Wages and Hours

With Washington reports indicating a better than 50-50 chance that a wage and hour bill will be passed by congress industry is anxiously watching its progress.

The oil industry, ranking among the peak of major industries in wage rates, and with by far the greater part of its employes beyond the provisions of the bill, is concerned about its effect upon stripper well production.

Labor on stripper wells is in a special class. The work is not arduous. It is an all around the year job. Living costs are usually lower than in the big centers of industry. Workers receive benefits in housing and utilities which by reducing expenses increase their buying power.

An arbitrary application of a theoretical regulation based on large scale industrial operations would be disastrous to the stripper well operator affecting his ability to operate profitably and thereby furnish employment.

Practical problems in actual working operations, familiar to those engaged in industry and business, but apparently unsuspected by the bill drafters at Washington, are the cause of justifiable concern.

The modifications in the Black-Connery bill made by the senate committee, eliminating some of the more extreme provisions, may not mean much, judging by the attitude of the house labor committee towards the changes.

But, aside from the controversial provisions, the vital principle of the measure, the dangerous precedent of federal control of wages and hours remains.

Whether the compromise views of the senate committee or the radical demands of the house committee are incorporated recognition of the principle of federal regulation will open the way for increasingly drastic legislation.

What that may mean is indicated by the report that the house committee, not satisfied with a maximum of 40 hours and a minimum of 40 cents, is already talking of a 60-cent minimum and a 35-hour maximum.

Moreover, the discretionary powers to be given to the labor board are so broad, the problems of administration so complex, as to make the whole scheme impractical.

The board could vary its wage or hour requirements for different classes of employers, employes, or employments, according to geographical regions, living costs, size of community or size of plant. In the oil industry, for example, some companies center their operations in a particular section but under the bill might have to compete with other companies elsewhere operating under an entirely different regulation at the discretion of the board.

There would also be the further danger that in attempting to avoid regulations that would mean profitable operations in one section but unprofitable operations in another there would be a demand for price fixing.

In fact, the whole scheme is but a revival of the labor features of the NRA, and certain to be beset by the same difficulties and dangers as that defunct measure.

Under the guise of beneficent purpose the country is being lured from its moorings toward the shoals and rocks of authoritarian government.

If some Rip van Winkle could awake today he would be less amazed at the automobiles, the airplanes and the radio than at the docility of the once proudly free and independent American people in the loss of rights they once held dear, and their somnolent acquiescence in paternal panaceas.

Geological Structures Mapped in Apache County, Arizona

By H. ROE

At a recent session of the Rocky Mountain Association of Petroleum Geologists Everett S. Shaw, petroleum geologist of Denver, presented an interesting review of a number of geological structures which he has detailed and mapped in Apache County, Arizona, about 40 miles south and east from the town of Holbrook.

To illustrate the talk he exhibited maps showing the regional geology, the approximate location of the structures, and a chart correlating the formations from a measured section on the Salt River, through the structures and over to the Rattlesnake field in the San Juan Basin.

Some seven or eight structures have been worked out, located in a huge basin commonly known as the Apache-Navajo geosyncline. This depression lies between the White Mountain uplift to the southwest, and the Zuni Mountains and Fort Defiance uplifts, which lie to the east and northeast of the basin, the axis of the basin running northwest-southeast. On the northeast flank of the White Mountain uplift, and possibly 20 miles or so west of the synclinal axis, there is a very distinct line of folding, which may be traced on the surface for a distance of 35 miles or more in a northwest-southeast direction; along this anticlinal axis are located the structures in question.

This area, in the opinion of geologists familiar with the area, has never been tested under proper conditions, for its oil and gas possibilities. The Adamana well, located in section 4-14n-21e, was drilled about 1919 and reached a depth of 3,387 feet; it was not on a structure. The Taylor Holbrook well, located in section 21-17n-21e, was drilled about 1923, and reached a depth of 4,290 feet; this well was located on a small structure of questionable merit, as it shows but 160 acres under closure. While these wells were started in extremely doubtful locations, a study of their logs gives a good idea of the formations encountered, and numerous showings of gas and oil were observed.

In addition to these, several other wells were drilled at other dubious locations, but did not attain sufficient depth to yield either production or stratigraphic information. It is safe to state that no major company would have drilled any of these wells on the information then available, and in particular would not have chosen those locations.

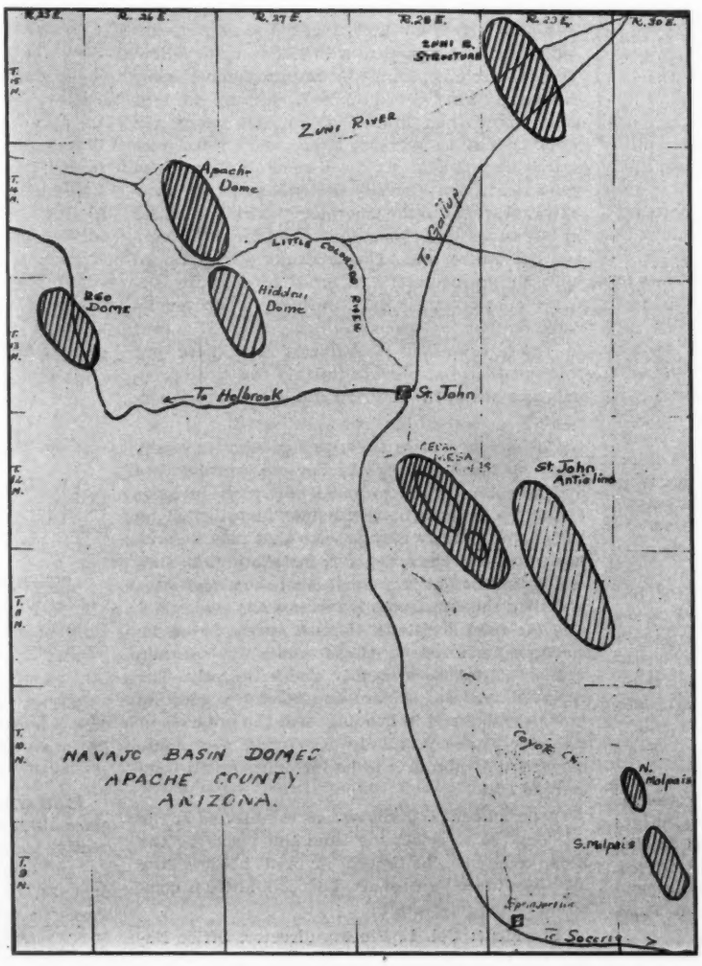
From the valley of the Salt River, where the lower stratigraphy is exposed, the sedimentary beds dip northeast for a long way into the deep structural basin in northwest New Mexico, known as the San Juan Basin. In the long monoclinal dip of some 250 miles from the axis of the White Mountain uplift to the center of the San Juan Basin there are several interruptions, the most notable being the Fort Defiance uplift and the Zuni Mountain uplift; in both of these folds sedimentary beds of Permian age rest upon the Pre-Cambrian.

In the case of the Fort Defiance uplift, it has been proven, from deep wells drilled in the Rattlesnake field by the Continental Oil Co., that a short distance from the uplift a thick Pennsylvania section is present, although entirely absent from the crest of the uplift. Of lesser extent than these two major uplifts, is the long anticlinal axis, about midway between Fort Defiance and White Mountain uplifts, along the line of which lie the Apache County structures. These domes bear no resemblance to the very small structures noted by Hager in his explorations of 15 years ago, to the west and north of the area under discussion; they have much steeper dip, far more closure, and the smallest of them contains six times as much acreage under closure. Briefly, these structures range from 1,000 to 8,000 acres in area, with dips of from 4 to 10 degrees, and closure from 75 to 175 feet.

Typical of these structures is the Apache dome, with an area of 4,000 acres, dips of 8 degrees, and 125 feet closure. Anticipated stratigraphy, from study of surface, well logs, and measured section on Salt Creek is described as follows:

0- 250	Moenkopi sandstone—Triassic. Several red sandstones, somewhat lenticular, occasionally conglomeratic, with bright red shale intervals.
250- 750	Coconino sandstone—Permian. A massive buff sandstone, soft, water-bearing.
750-1,850	Supai—Permian. Alternating red-brown shales, salt and gypsum in upper part; red shale with occasional limestone containing fossils.
1,850-2,850	Goodridge lime—Pennsylvanian.
2,850-2,950	Sand and shale.
2,950-3,800?	Lime, shales, sandstones and conglomerate —Redwall, Mississippian, Devonian, Ordovician, Cambrian.
3,800?	Quartzite.

Below the Supai lies the Goodridge lime series of Pennsylvanian age. The change from Supai to Goodridge is gradual or transitional; the limestones become more numerous, and the shales between change from a bright red to a brown, then to a gray, and in many instances to a black color. The Goodridge formation, as measured with a hand level on the north side of the Salt River about 50 miles northeast of Globe, is about 750 feet thick. In the Rattlesnake deep test well the base of the Goodridge was found at 7,200 feet and the top was at 5,600 feet, giving a thickness of 1,600 feet; it is reasonable to expect a thickness of at least 1,000 feet at Apache dome. In the exposed section at Salt River, the lower half consisted largely of thin fossiliferous limestones, and highly fossiliferous gray black shales, both of which could furnish large amounts of source material for the formation of oil and gas.



Below the Goodridge lime series, in the section examined on Salt River, is a zone 75 feet thick, of coarse buff sand and reworked shales, suggesting strongly a break in the deposition, in other words, an erosional unconformity; this horizon is very likely to produce oil or gas in commercial quantities. Any thickening of the stratigraphic section to the northeast, towards the Apache dome, will in all probability take place above this erosional unconformity.

Below this horizon, at the Salt River section, is a zone 650 feet thick, composed largely of limestone, with numerous sandy zones and clean sandstones, with minor amounts of shale; most of this limestone is fossiliferous; the top of this zone is the Redwall limestone of Mississippian age, and the remainder probably belongs to Devonian and Ordovician.

The top of the Cambrian is represented by a massive quartzite, 500 feet thick, more or less. In the meas-

ured section, from the base of Supai to top of Cambrian is 1,500 feet, composed of:

Limestone, approximately 67 per cent of which 75 per cent is fossiliferous.

Shale, approximately 24 per cent of which 50 per cent is fossiliferous.

Sandstone and conglomerate, approximately 9 per cent.

Using these approximate percentages, there are therefore nearly 1,000 feet of fossiliferous material, capable of yielding source material for oil and gas.

Similar stratigraphical conditions, with local modifications might be expected on the remaining domes.

It is interesting to note that the first deep well in the Rattlesnake field had initial production of 800 bbls. per day, green oil of 42 degrees gravity at a depth of 6,767 feet, and that this horizon correlates at approximately 3,000 feet below the surface at Apache dome.

Tentative log of a test well at Apache dome, derived from the drillers' logs of the Adamana and Taylor-Holbrook wells, and the measured section at Salt Creek shows 11 possible horizons for production of oil or gas, and is as follows:

0- 250	Red sandstone and shales.
250- 750	Coconino sandstone—water.
750-1,850	Supai formation—gypsum, shale, salt.
1,850-	Top of Goodridge lime—oil or gas.
1,850-2,100	Limestone—oil or gas in breaks.
2,100-2,120	Sand—oil or gas in breaks.
2,320-2,420	Sand—oil or gas.
2,525-2,540	Sand—oil or gas.
2,580-2,590	Sand—oil or gas.
2,985-3,000	Sand—oil or gas.
3,000-3,700	Mostly lime with porous streaks—oil or gas.
3,700-3,710	Sand—oil or gas.
3,810-3,875	Sand—oil or gas.
3,835-4,215	Sand—oil or gas.

The relative locations of the Apache County structures are shown on the map. The two deep wells referred to herein are located about 35 miles west of this area.

It is estimated that some 40,000 acres covering these structures is now under lease to various companies. The approximate size, and ownership of the oil and gas rights, of the structures, as far as can be ascertained, is as follows:

Zuni River dome—6,000 acres—Argo Oil Co., Denver, Colo.

St. Johns dome—8,000 acres—Saltmount Oil Corp., Colorado.

Hidden dome—4,000 acres—John P. Bowditch and others, New York.

Apache dome, 260 dome, Cedar Mesa domes and Malpais domes—19,000 acres—Franco Western Oil Co., Los Angeles.

The Goodridge lime referred to herein has for many years past been known to produce high gravity oil, in small wells, in the vicinity of the San Juan River in southeastern Utah; it is believed that under proper structural conditions this lime might yield good oil in commercial quantity.

Current events indicate that one or more of the Apache County structures will be tested sooner or later, and the geology now available certainly portends greater chances for successful discovery than was the case in the earlier explorations in this area. One failure will not condemn the remaining structures, nor will one good well guarantee production on all structures. It will be remembered that, in the development of the San Juan Basin commencing in 1923, out of seven domes developed the Hogback and Rattlesnake fields, each of which have long passed the 1,000,000-bbl. mark, and Table Mesa, a much smaller field; the other four structures were failures; fortunately for the industry, the first structure to be drilled, the Hogback, proved to be productive.

WASHINGTON, D. C., July 19.—The house approved and sent to the senate measures to authorize the president to invite the states and foreign countries to participate in the Oil World Exposition to be held at Houston, Tex., next October and the International Petroleum Exposition at Tulsa in May, 1938.

European Technologists

(Continued from Page 27)

was served. The delegates then were divided into groups for entering the mines and making further examination of the properties. They first were provided with proper clothing and a proteetive helmet, which saved many a head from a hard bump as we walked through the lower levels of the mine.

The mining of oil now is being conducted 1,200 feet below the surface. The delegates were taken in groups down the shaft to the lower level and were here shown the method of removing the shale and other rocks to project the necessary galleries to the oil sands. Sand points were inserted into the sands and oil trickled into sumps from which it was pumped to the surface.

The economics of the method of mining may not appear to the average oil producer, but the high import taxes on petroleum products and crude oil make the Pechelbronn project a sound business venture. The process at Pechelbronn will always be of interest and certainly it has potential value against the day when we in this country shall be forced to extract larger quantities of oil from our oil sands. The Pechelbronn property is being explored by American methods. A standard rotary rig has been erected prepared to go 6,000 feet. Recently oil has been produced on the property by drilling methods.

Shell Laboratories

An outstanding feature of my visit was the inspection of the Shell Laboratories at Amsterdam, consisting of 20 buildings employing a force of approximately 1,200 experts. These laboratories are equipped with every conceivable form of apparatus, all of the standard instruments and numerous ones which have been designed by the experts of this company. The work is highly specialized, each section having a particular line of work to follow. The research departments naturally have many different forms of equipment, varying in type much more than in the laboratories where the work is routine. When it is necessary for the research department to have some ordinary test made, such as a viscosity determination, the sample of oil is sent to the laboratory which specializes in viscosities, and this system is followed throughout the entire unit. The laboratory is equipped with all the necessary facilities to duplicate the work of any other Shell refinery wherever located so that the special oil being handled is sent to the Amsterdam laboratories and there put through the pilot plants to obtain the same products as made at the refinery and in the same quantities.

All new processes are investigated with equipment sufficiently large to operate continuously and to obtain products and by-products in large enough volume to be thoroughly investigated by the chemists. Any new process that may be seriously considered for plant installation is first tested in the relatively small laboratory apparatus and then this apparatus is increased to pilot plant size for final decisions. It must surely be an inspiration for any technologist to see this splendid unit operating so smoothly and efficiently. The research laboratories are continually suggesting new products and in keeping with the progress of the times, are continually developing new methods and new products to be introduced on a commercial scale.

A permanent committee was established at the oil congress to select the time and place for the next congress. Sentiment favored holding the meetings three years apart. This committee is composed of the following:

President: Col. L. Pineau, director, Office National des Combustibles Liquides, 85, Boulevard Montparnasse, Paris, 6e.

Members: Ch. Bihoreau, director, Technical Services, Office National des Combustibles Liquides, 85, Boulevard Montparnasse, Paris, 6e. Lt. Col. S. J. M. Auld, O.B.E., M.C., D.S.C., chief technologist, Vacuum Oil Co., Caxton House, Tothill Street, London, S.W.1. Ing. J. H. C. de Bray, engineer, Bataafsche Petroleum Mij., 30, Carel van Bylandtlaan, The Hague, Holland. T. Dewhurst, chief geologist, Burmah Oil Co., Britannic House, Finsbury Circus, London, E.C.2. Dr. G. Egloff, Universal Oil Products, 310 South Michigan Avenue, Chicago, Ill. Prof. P. Erculisse, chief of "Sofina" Laboratories; professor, Brussels University, 215 Rue du Trone, Brussels, Belgium. W. P. Haynes, Standard Oil Co. of New Jersey, 30 Rockefeller Plaza, New York City. Prof. L. Mrazec, Institutul Geologic Al Romaniei, Soseaua Kiseleff, 2, Bucharest, Rumania. Prof. Stanislas Pilat, professor of petroleum technology, Buguslawskiego 9, Lemberg, Poland. Ing-Dir. M. Streintz, Osterreichischen Ministerium fur Handel und Verkehr, Stubenring 1, Wien, Austria. Prof. Dr. L. Ubbelohde, Technisch-Chemisches Institut der Technischen, Hochschule, Gartenufer 1, Charlottenburg 2, Berlin.

General secretary: J. Filhol, Office National des Combustibles Liquides, 85 Boulevard Montparnasse, Paris 6e.

An invitation to hold the next World Congress in Tulsa in 1940 was presented to this committee Friday afternoon, June 18, on behalf of the International Petroleum Exposition of Tulsa. The official invitation was hand illuminated. After I had read this invitation to the delegates it was hung on the wall at the direction of the president, so that all members of the committee could see it and it was then translated into French by the official interpreter. Many hundreds of the delegates expressed the hope that the committee would select Tulsa as the next meeting place.

The afternoon and evening spent at Versailles, visits to the Chateau de Versailles and the Trianons, the banquet in the Orangerie of the palace, the illumination of the fountains and the fireworks in the evening, the ballet under the direction of Loie Fuller and the remarkable fireworks in such glorious setting will always be pleasant memories in the minds of delegates to the congress. The French were always solicitous concerning our comfort and it is hoped that when the congress comes to Tulsa in 1940, as I believe it will, we shall be able to return in some measure the hospitality and courtesy we received in Paris.

OBITUARIES

DR. CLEMENS OSCAR KLEBER, 74, internationally known in the oil and aromatic fields of chemistry, died last week at Clifton, N. J.

LUTHER D. DIMM, veteran Standard Oil Co. of California official and manager of its El Segundo refinery until his retirement in 1927, died recently from acute heart trouble.

JEFF D. FARISH, 49, oil attorney, Houston, Tex., died recently. He was a nephew of Jefferson Davis, president of the Confederacy.

JOHN KORP, 64, independent oil operator in Texas since 1912, died at his home in Abilene, Tex., recently. He was president of Abilene Pipe & Supply Co. and Acme Pipe & Supply Co. at Albany. Born Sept. 24, 1872, at South Bend, Ind., he moved to Texas in 1919. He had been an operator in the Jack County, Breckenridge and Albany fields.

New Mexico Commission Hears Engineers From Lea County

By L. G. E. BIGNELL

SANTA FE, N. Mex., July 19.—Many persons in a position to know believe the New Mexico oil and gas conservation laws are models which might well be followed by other states. These laws were enacted and approved February 23, 1935, and the test of time has confirmed the above opinion. Under the law the Oil Conservation Commission holds meetings at Santa Fe at intervals to discuss field conditions and a meeting of this kind was held July 15. Preceding the formal hearing before the commission the engineers committee for the Lea County Operator's Committee held a meeting in La Fonda Hotel July 14 at which about 50 engineers were present.

G. D. Macy, state geologist and member New Mexico Oil Conservation Commission

G. D. Macy, state geologist and member of the Oil Conservation Commission, requested consideration be given to the following problems: Gas lift, establishing boundary between the Eunice and Monument pools, determining the size of proration units, providing suitable storage on leases for gauging wells and reporting natural gasoline. These were subjects of very general interest to all operators in the Lea County district and the first step taken was to hear the report of a special committee of engineers with Edgar Kraus, chairman, and T. J. Slavik, R. S. Dewey and J. E. Rowe, members.

The Oil Conservation Commission issued February 1, 1937, circular No. 3 covering "Special Rules and Regulations for the Lea County Fields, New Mexico" and on page 7 of this circular provision is made that "Gas lift shall be used in regular production practice only after application to and approved by the commission." The committee's recommendations to the commission this rule be unchanged and it was accepted.

The engineers were of opinion gas lift will afford a means of securing the oil from the Lea County fields at a lower cost than any other method. They further stated they believed gas lift would provide a means of securing small quantities of oil and still maintain a margin of profit. Source of gas for this purpose was discussed and it was recommended the supply be secured from some source other than that in immediate contact with the oil reservoir, or such gas as would otherwise be blown to the air and wasted.

While the whole area might be considered one oil field it is proper to designate Eunice and Monument as two separate pools as their reservoir characteristics are different. One particular difference is bottom-hole or formation pressure. Another difference is in the method of proration and it is not deemed feasible to gain the approval of all operators in the Monument pool to change to the flat acreage plan although it might be agreeable to majority of the operators to adopt this plan for proration purposes.

After considering these phases, the committee made final recommendation that the two pools be divided by "An east-west line to run one-quarter mile south of the north line of the following sections:

"Sections 23 and 24-36-20 and sections 19, 20, 21 and 22-37-20."

In arriving at this boundary line the engineers developed that this line closely coincides with the south contour of the producing formations of the Monument pool and also separates the areas of different bottom-hole pressures. Also the line will be bounded on each side by the same owners and royalty interests in all tracts which will eliminate drainage problems.

Size of Proration Unit

In surveying land in New Mexico the law provides all meridianal convergences shall be corrected along the north and west boundaries of each township. This has led to many tracts of less or more than 40 acres being leased in the Lea County fields and the question has come up as to whether the fractional tracts should be given special consideration as regards their size in working out proration rules and regulations. There are many tracts smaller than 40 acres and also many from a fraction to four or five acres oversize. The commission has recognized this situation in issuing drilling permits by allowing the operator to designate the boundaries of the 40-acre tract within the larger survey and then an additional permit will be granted for another well upon the fraction if the operators desire it. But in issuing proration orders the fractional tract would be allowed to produce only its just proportion of oil compared with the production from a 40-acre tract and this has usually discouraged the drilling of wells upon fractional pieces of land.

Taking into consideration all of these points the Lea County committee recommended that "A unit for proration purposes be a regular subdivision or lot of 40 acres, more or less, as defined by government survey."

The matter of providing proper tankage facilities for wells in the Lea County fields has come up for consideration and after much discussion the committee recommended:

"The first paragraph under the caption Central Tank Batteries in circular No. 3 read: 'At the option of the operator, a central tank battery may be used to receive the production of two to not more than five units of the same basic lease, exceptions to be made at the discretion of the commission. Such central tank battery shall include adequate tankage and other equipment so that the production of each well can be accurately determined at reasonable intervals.'"

The rules governing Lea County fields require monthly reports of operations to be filed with the commission and one of the items covered is natural gasoline. The committee recommended to the commission that "In as much as gasoline recovered has no direct connection with the 40-acre proration unit it would simplify the making of this gasoline report to record 'gallons of gasoline' as a total lease figure without attempting to allocate it back to individual producing wells."

John H. Kane, Phillips Petroleum Co.

This concluded the hearing before the commission which was presided over by Frank Worden, commissioner of public lands, with G. D. Macy, state geologist, and Dr. E. H. Wells, members of the commission, in attendance.

Atlantic Testing Motor Fuels

PHILADELPHIA, Pa.—Starting this week, Atlantic Refining Co. will extend, through road tests, an elaborate research program which has been under way in its laboratories for many months. The work has centered principally about the antiknock quality of fuels. Ten cars representing the major portion of those in general use, will be driven over a section of road near Lewistown, Pa. Each car will carry a driver and a trained observer who will note the performance of the gasoline under test. The technique employed will be to match the test fuels against standard reference fuels of known laboratory performance, thus providing a comprehensive road rating of each fuel in terms of octane numbers.

The road tests, scheduled to cover seven weeks during the hottest period of the year, will be repeated later in the year in order to obtain similar data under cold weather conditions. When the entire series of tests has been completed it is expected that the results will reveal important new information bearing upon the manner in which gasoline should be manufactured to obtain the highest quality in the modern automobile.

Planning Another Test

COUTTS, Alberta, July 19.—The Range Oil & Gas Co., of Calgary, is making plans for drilling another test on the Rogers-Imperial structure. No. 1 Rogers-Imperial, section 29-1-11w4, originally a joint test by Mark Rogers and Imperial Oil, Ltd., was brought into production in 1924 with an estimated gas flow of 65,000,000 feet a day. Later the Range Oil & Gas Co. took over the well and acreage. Since then it has obtained an export license and the production has been used to a small extent to meet peak-load demands at Great Falls, Mont. The field has been considered a potential reserve for the proposed pipe line to deliver gas from the Montana and Wyoming fields to Minnesota and St. Paul. The Range company made a survey of the Rogers-Imperial structure on which it holds some 3,000 acres.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ending July 3 totaled 308,744,000 bbls., according to the Bureau of Mines, an increase of 1,065,000 bbls. comprising an increase of 1,087,000 bbls. in stocks of domestic crude and a decrease of 22,000 bbls. in stocks of foreign crude. Daily average crude runs to stills increased 25,000 bbls. to 3,270,000 bbls. but remained below the peak of 3,320,000 bbls. for the week ending June 19. Daily average imports were 76,000 bbls. compared with 117,000 bbls. for the previous week.

STOCKS OF CRUDE

Grade of crude oil—	June 26	July 3
Pennsylvania Grade	3,922,000	3,933,000
Other Appalachian	810,000	854,000
Lima-N.E. Indiana-Michigan	1,557,000	1,635,000
Illinois-S.W. Indiana	9,577,000	9,631,000
N. Louisiana and Arkansas	9,391,000	9,716,000
West Texas and S.E. New Mexico	31,286,000	31,240,000
East Texas	23,552,000	24,011,000
Other Mid-Continent	127,843,000	127,584,000
Gulf Coast	25,712,000	25,546,000
Rocky Mountain	25,146,000	25,076,000
California	28,420,000	29,027,000
Foreign	2,263,000	2,241,000
Total reported weekly	289,479,000	290,494,000
Estimates of unreported stocks	18,200,000	18,250,000
Total stocks	307,679,000	308,744,000

Fleetborn Negotiations

It is reported holdings of Fleetborn Oil Co. in the Fitts field, Pontotoc County, Oklahoma, are to be sold to W. R. Davis, Texas operator, and New York capitalists. Only the producing properties are said to be involved as W. B. Osborn and D. F. Fleet, both of Ada, owners of Fleetborn Oil, intend to retain their royalty interests. The purchase, it is understood, is to be made under the name of Jade Petroleum Corp. Davis is operating in Texas as Texas Crusader Oil Co.

Expo Assistant Manager

E. Merl Clark has been appointed assistant general manager for the May 14 to 21, 1938, International Petroleum Exposition in Tulsa, according to announcement by General Manager W. B. Way. A downtown office at 220 East Third Street has been opened and all files and records moved from the office at the show grounds east of the city. Mr. Clark, a Tulsan for the past seven years, was formerly with Barrow-Wade-Guthrie Co. in Tulsa.

E. MERL CLARK

THE MARKETS*

CRUDE OIL: *No changes in posted schedules. Spot crude available at several points in Mid-Continent and Gulf Coast with crude market generally "easier" than it was earlier in the year. Western Kansas production in excess of pipe line outlets.*

REFINERY: *Gasoline prices virtually unchanged from last week, with low levels still prevailing in large interior region, notwithstanding vigorous demand. Bright stocks and neutrals drop still lower in East, with resultant weakening of these products in Mid-Continent. Active buying of heating oils by jobbers for storage.*

TANK-WAGON AND SERVICE STATION: *Severely competitive conditions at points in Middle West are preventing restoration of tank-wagon prices which were reduced last month. Few and inconsequential changes in service station prices.*

FINANCIAL: *Common stocks continue price recovery with additional stocks establishing new highs for the year. Average of 30 representative stocks for week ending July 17: High, 43.02; low, 41.53; close, 42.51. Week ending July 10: High, 42,20; low, 40.83; close, 41.59.*

**Detailed information in Market Section.*

I.P.A.A. Executive Committee

SANTA FE, N. Mex.—The executive committee of the Independent Petroleum Association met at the La Fonda Hotel here on July 12 and all but three of the members of the committee were present. Much of the discussion was devoted to devising means and methods to retain the depletion provisions of the income tax law. Definite steps will be taken to try to maintain this depletion rule and it is proposed to discuss the matter in more detail at the annual meeting of the association in Houston, Tex., at the Rice Hotel, October 14, 15 and 16. The meeting here was held in conjunction with the quarterly meeting of the Interstate Oil Compact Commission.

Dealer Development Crews

LOS ANGELES, Calif.—Following two years' experimental work with its dealer development crew, Associated Division, Tide Water Associated Oil Co. has increased its dealer contact to three crews for the Pacific Coast territory, according to P. E. Allan, domestic sales manager. One crew is in Oregon and Washington, one in northern California and one in southern California. The crews, consisting of two men each with a specially equipped automobile, are constantly to be in the field, offering dealers assistance in merchandising practices.

At a two-day development conference under the direction of Harold R. Deal, sales promotion and advertising manager, topics dealing with dealer development were discussed by P. E. Allan, domestic sales manager; W. A. Reanier, white oil sales manager; M. W. Pease, assistant merchandising manager, and F. L. Wagar, manager of automotive lubrication. The dealer development crew which for two years has covered the western territory consists of K. P. Moffat and Norman Taylor. The members newly added are L. V. Islip, H. H. Rantzow, R. E. Walsh and J. R. Johnson.

Oil and Gas Power Meeting

Dr. Gustav Egloff, Universal Oil Products Co., will speak on "Polymerization of Fuel Oils" Saturday morning, August 21, at the Tenth National Oil and Power Meeting of the American Society of Mechanical Engineers at State College, Pa., which will be held under the joint auspices of the Oil and Gas Power Division and the Central Pennsylvania Section of the society and the School of Engineering of Pennsylvania State College.

The meeting will open August 18. At the operating session Friday morning, August 20, L. M. Goldsmith, Atlantic Refining Co., will act as chairman. J. S. Chandler, Pennsylvania State College, will speak on "Penn State Method of Testing Diesel Fuels."

During the meeting the 1936 oil engine power cost report will be presented in the same form as previous issues.

Recovering Cased Off Production

Reports of the National Oil Scouts Association meeting at Dallas quoted Bruce Barkis of the Lane-Wells Co. as saying that from 1,000,000 to 1,500,000 bbls. of oil are estimated to be cased off in wells. What Mr. Barkis said in his paper on "Recovering Cased Off Production—Its Effect on National Oil Reserves," was from 1,000,000,000 to 1,500,000,000 bbls. of oil are estimated to be cased off in wells over the country and that this cased off production, at least a greater part of it, can be located and obtained by simplified methods devised by engineers who have perfected instruments to do the work."

Crude Oil and Refinery Summary for First Five Months of 1936-1937

The daily average production of crude petroleum in May 1937, was 3,577,800 bbls., 78,500 bbls. higher than for the previous record month of April, 1937, according to the Bureau of Mines.

Daily average production increased in all of the major fields except Oklahoma, which declined from 680,600 bbls. in April to 665,100 bbls. in May. The increase in Texas was 48,700 bbls., in California 29,800 bbls., in Louisiana 5,700 bbls., in Kansas 5,200 bbls., and in New Mexico 6,800 bbls. There were slight increases in Montana and Wyoming while Pennsylvania and Michigan decreased.

The indicated domestic demand for motor fuel during May was 45,484,000 bbls., or 8 per cent higher than for May, 1936, compared with a gain of 11 per cent for the January-May period in 1937 over the same period in 1936. Motor fuel exports amounted to 3,333,000 bbls., or 625,000 bbls. more than the average for the first four months of the year. Stocks of finished and unfinished gasoline declined 1,000,000 bbls. to 79,677,000 bbls. compared with a decline of 1,904,000 bbls. in May, 1936.

Stocks of both distillate and residual fuel oils gained during May, while demand for both products declined. Demand for both products for the first five months is above the demand for the same period in 1936, while stocks were lower.

Supply and Demand—Crude Oil (Bbls.)

Five months—	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Indicated domestic demand‡	Exports	Stocks refinable crude May 31
1937	523,396,000	503,371,000	*20,025,000	*3 8	514,354,000	9,042,000	481,107,000	22,264,000	308,209,000
Daily average	3,466,000	3,334,000	*133,000	....	3,406,000	60,000	3,186,000	147,000	.....
1936	458,579,000	458,260,000	*314,000	.7	445,726,000	12,853,000	440,431,000	17,829,000	315,169,000
Daily average	3,037,000	3,035,000	*2,000	....	2,951,000	85,000	2,917,000	118,000	.....
Increase, 1937	64,817,000	45,111,000	.....	....	68,628,000	†3,811,000	40,676,000	4,435,000	†6,960,000
	14.1%	9.8%	.....	....	15.4%	†29.7%	9.2%	24.8%	†2.2%

Supply and Demand—Refinery Products—Motor Fuels (Bbls.)

Five months—	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Domestic demand	Exports	Stocks May 31§
1937	227,254,000	209,314,000	*17,940,000	*8.6	227,254,000	.....	195,150,000	14,164,000	85,666,000
Daily average	1,505,000	1,386,000	*119,000	....	1,507,000	.....	1,292,000	94,000	.....
1936	203,414,000	187,420,000	*15,994,000	*8.5	203,414,000	.....	176,331,000	11,089,000	77,269,000
Daily average	1,347,000	1,241,000	*106,000	....	1,347,000	.....	1,168,000	73,000	.....
Increase, 1937	23,840,000	21,894,000	.....	....	23,840,000	.....	18,819,000	3,075,000	8,397,000
	11.7%	11.1%	.....	....	11.7%	.....	10.7%	27.7%	10.9%
Kerosene									
Five months—									
1937	26,226,000	26,283,000	57,000	.2	26,226,000	.....	22,924,000	3,359,000	5,576,000
1936	23,526,000	24,761,000	1,235,000	5 0	23,526,000	.....	22,401,000	2,360,000	6,681,000
Increase, 1937	2,700,000	1,522,000	.....	....	2,700,000	.....	523,000	999,000	†1,105,000
	11.5%	6 1%	.....	....	11.5%	.....	2.3%	42.3%	†16.5%
Gas Oil and Fuel Oil¶									
Five months—									
1937	197,462,000	206,869,000	9,407,000	4 5	187,505,000	9,957,000	189,787,000	17,082,000	97,609,000
1936	183,836,000	185,825,000	1,989,000	1 1	176,930,000	6,906,000	171,526,000	14,299,000	101,995,000
Increase, 1937	13,626,000	21,044,000	.....	....	10,575,000	3,051,000	18,261,000	2,783,000	†4,386,000
	7.4%	11 3%	.....	....	6.0%	44.2%	10.6%	19.5%	†4.3%
Gas Oil and Distillate Fuels									
Five months—									
1937	57,842,000	62,108,000	4,266,000	6 9	57,362,000	480,000	51,205,000	10,903,000	18,451,000
1936	51,696,000	51,716,000	20,000	.04	51,696,000	.....	43,759,000	7,957,000	19,910,000
Increase, 1937	6,146,000	10,392,000	.....	....	5,666,000	480,000	7,446,000	2,946,000	†1,459,000
	11.9%	20.1%	.....	....	11.0%	.....	17.0%	37.0%	†7.3%
Residual Fuel Oils									
Five months—									
1937	139,620,000	144,761,000	5,141,000	3.6	130,143,000	9,477,000	138,582,000	6,179,000	79,158,000
1936	132,140,000	134,109,000	1,969,000	1.5.	125,234,000	6,906,000	127,767,000	6,342,000	82,085,000
Increase, 1937	7,480,000	10,652,000	.....	....	4,909,000	2,571,000	10,815,000	†163,000	†2,927,000
	5.7%	7.9%	.....	....	4.0%	37.2%	8.5%	†2.6%	†3.6%
Lubricating Oils									
Five months—									
1937	14,429,000	14,434,000	5,000	.03	14,429,000	.....	9,961,000	4,473,000	6,478,000
1936	12,483,000	12,625,000	142,000	1.1	12,483,000	.....	9,004,000	3,621,000	6,884,000
Increase, 1937	1,946,000	1,809,000	.....	....	1,946,000	.....	957,000	852,000	†406,000
	15.6%	14.3%	.....	....	15.6%	.....	10.6%	23.5%	†5.9%
Petroleum Wax (Lbs.)									
Five months—									
1937	227,191,000	234,211,000	7,020,000	3.0	216,160,000	11,031,000	125,418,000	108,793,000	103,614,000
1936	209,866,000	203,125,000	*6,741,000	*3.3	203,000,000	6,866,000	123,720,000	79,405,000	121,416,000
Increase, 1937	17,325,000	31,086,000	.....	....	13,160,000	4,165,000	1,698,000	29,388,000	†17,802,000
	8.3%	15.3%	.....	....	6.5%	60.7%	1.4%	37.0%	†14.7%

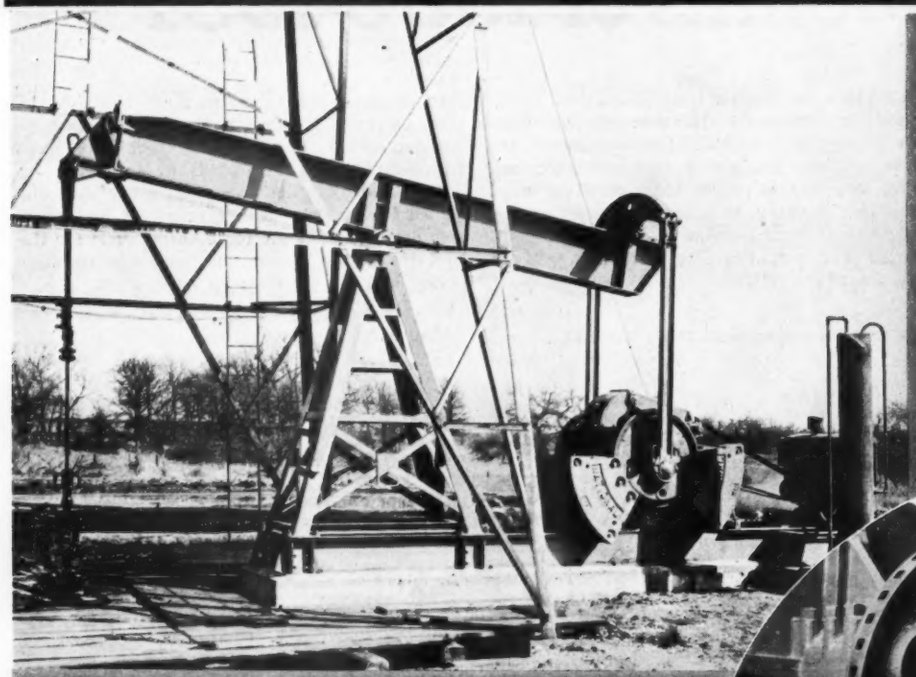
*Excess supply. †Decrease. ‡Crude oil only. §Includes finished, unfinished refinery gasoline and natural gasolines. ¶Gas oil and fuel oil equals gas oil and distillate fuels plus residual fuel oils. Note: Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments.

Crude Oil Run to Stills and Total All Oils (Bbls.)

Five months—	Total imports§	Total exports§	Total crude to stills	Per cent yield gasoline‡	Nat. gasoline production	Total supply all oils*	Total demand all oils*	Stocks all oils May 31
1937	21,247,000	62,116,000	467,588,000	47.3	19,104,000	555,979,000	525,894,000	548,681,000
Daily average	141,000	411,000	3,097,000	....	127,000	3,682,000	3,483,000	3,634,000
1936	22,255,000	50,197,000	427,767,000	47.1	16,767,000	485,718,000	472,995,000	554,423,000
Daily average	147,000	332,000	2,833,000	....	111,000	3,217,000	3,132,000	3,672,000
Increase, 1937	†1,008,000	11,919,000	39,821,000	....	2,337,000	70,261,000	52,899,000	†5,742,000
	†4.5%	23.7%	9.3%	....	13 9%	14 5%	11.2%	†1.0%

*Total all oils includes crude and refined products, natural gasoline and benzol. †Decrease. ‡Includes natural gasoline blended at refineries. §Includes crude oil and refinery products. In case of imports includes receipts in bond and for domestic use. All data based on Bureau of Mines reports.

UNIT PUMPERS



That Adjust their Counterweights by Power

● When changing position of counterweights on National Unit Pumpers, the crank is rotated with the weight unclamped to the position having the desired counterweight effect. The crank is then held by the service brake while the weights are clamped.

The Engine Does the Work

PATENTED
NO. 2,059,345 NO. 2,071,007
NO. 2,071,006 AND PATENTS PENDING

NSCO
REG. U. S. PAT. OFF.

National

THE NATIONAL SUPPLY COMPANY OF DELAWARE

DIVISION OFFICES: PITTSBURGH, PA., FORT WORTH, TEXAS, TULSA, OKLA., TORRANCE, CALIF. • MAIN OFFICE: TOLEDO, OHIO

Oil News from Foreign Lands

Mexico Takes Over More Land

Continuing its policy of gathering unto itself all possible petroleum properties, potential or proven, the Mexican government last week issued a decree incorporating into the National Oil Reserves 7,165,000 acres of land at Tecuanapa, Vera Cruz State.

The property involved formerly belonged to Pearson & Son, which is now a part of the Mexican Eagle Oil Co., a subsidiary of the Royal Dutch Shell group. Pearson's contract was canceled in 1935, but formal promulgation of the decree was delayed until last week. During the interim efforts were made to set aside the contract cancellation order.

A heavier royalty payment to the Mexican government on oil production appears to have been made a policy of National Economy Department, but it remains uncertain whether the new regulations reserving from 5 to 10 per cent of production for the government will apply to old as well as future permits. While there has been nothing official released in Mexico pertaining to the amount of royalty the government intends to levy, it is rumored to be between 5 and 10 per cent of gross recovery. It is believed in Mexico that the new scale of royalty payments to the government will become the basis for granting new drilling permits. There is some doubt that the new policy can be applied to permits granted in the past under other terms and it is certain that any effort to make the heavier levies retroactive would be resisted strongly by producing companies in Mexico.

That the Mexican government is embarked on a program of deriving greater returns from oil production is indicated in the following quotation from the paper "El Nacional":

"Each company or person that exploits the subsoil of Mexico in the realm of petroleum is obligated in the future to pay royalties to the federal government and to prosecute work in a regular form in conformity with the concessions which have been granted to them and in accordance with the contents of Article 27 of the constitution.

"In regard to the maintenance of regular work to which all the holders of concessions granted by the federal government will be obligated, the same article on stipulating that the concession is the only means that authorize private persons to exploit petroleum and its derivatives, sets forth that the concession must be subject to the condition of establishing regular development."

French Motor Fuel Consumption

French motor fuel consumption in 1936 totaled approximately 22,375,016 bbls., and 87 per cent was petroleum gasoline. The remainder was benzol and alcohol. As in the United States, most of the motor fuel consumption in France is in the engines of automotive units. The nation's 2,095,310 automotive units, consisting of 1,638,500 passenger cars and 458,942 commercial vehicles, consumed approximately 21,385,000 bbls. of motor fuel during 1936.

The reports, prepared by the United States consular service and distributed by the Department of Commerce, disclosed that France's 526,713 motorcycles consumed 366,500 bbls. of gasoline and ranked next to automotive units in motor fuel consumption, outranking aviation, motor boats and stationary engines. While no report was available on military aviation consumption, civil and commercial airplane operation accounted for 161,500 bbls. for the year.

Included in the total of 458,942 commercial vehicles in operation at the end of the year were 26,000 diesels and 2,500 "gasogenes," or gas combination generator powered units. Despite the heavy increase in French production of gasoline, importations of quality gasoline during 1936 amounted to about 4,470,000 bbls., of which 2,005,000 came from the United States. Ordinary gasoline importations totaled nearly 1,100,000 bbls. and more than 1,250,000 bbls. of gas oil were imported to meet French demands.

Must Color Imported Kerosene

All kerosene imported into or sold in Uruguay must be colored, according to a presidential decree. Customs authorities will have charge of coloring all imported kerosene at the expense of the importer. Kerosene imported or produced by the ANCAP, national administration of fuels, alcohol and portland cement, will be colored by the company itself.

Netherland Indies Consumption

One of the few exceptions to the general trend of greater petroleum consumption is reported from the Netherland Indies where gasoline and kerosene used during the first quarter of this year fell below the level established for same period in 1936.

This year's gasoline consumption is reported to total 10,042,800 gallons for the first three months, compared to 11,475,561 gallons in 1936. Kerosene consumption dropped to 18,025,625 gallons for the first three months of 1937 while for the same period last year 19,841,479 gallons were consumed.

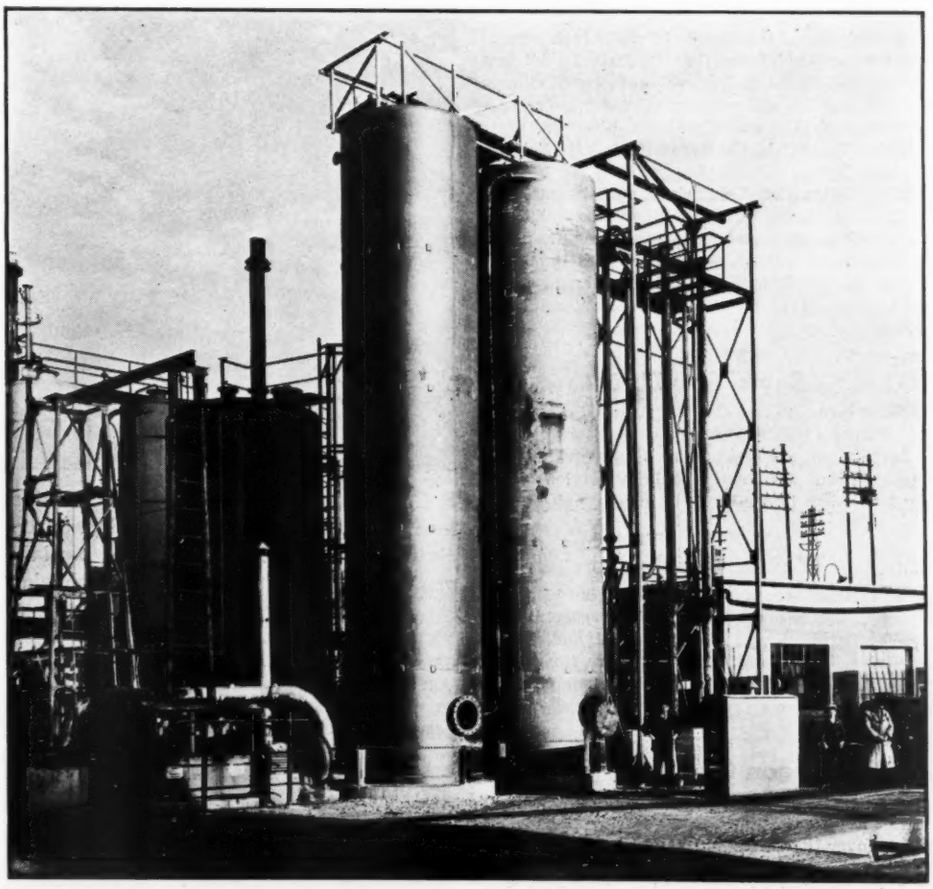
Proposed Guatemalan Exploration

Approximately 275,000 acres in Guatemala, Central America republic, are sought by two groups who have applications pending for exploitation licenses. The first petition was presented by a group of seven and the request for license includes the right to exploit petroleum products in an area of about 70,000 hectares in the department of Izabal.

The territory covered by the petition for license includes most of that part of Izabal lying west of Livinston and north of Lake Izabal. The petition requests a period of three years for exploration work and the group agrees to commence exploration and geological studies within a period of six months from the date on which the concession is granted.

The second request for a licence for exploration was made by a group of four and covers 40,000 hectares, about 100,000 acres, in the department of Izabal, south of Puerto Barrios in an area along the Puerto Barrios-Guatemala City railroad to the town of Morales.

In the current stage of negotiations, none of the major companies is directly identifiable with the deal in Guatemala.



The benzine cracking plant at Steaua Romana's refinery at Campina, Rumania

Pipe Line Activity

Plan 650-Mile Gasoline Line

Announcement has been made that four independent companies, Anderson-Prichard Oil Corp., Oklahoma City; Bell Oil & Gas Co., Tulsa; Cushing Refining and Gasoline Co., Cushing, and Rock Island Refining Co., Duncan, Okla., following a meeting at Oklahoma City, decided to construct a gasoline pipe line which will originate at their respective refineries and terminate in central Iowa. One branch will probably have its terminus on the Mississippi River. Ford, Bacon & Davis of New York have been employed to prepare a preliminary estimate of costs and details of construction. Consideration is also being given to the extension of the line from its southern terminus at Grandfield, Okla., to Colorado, Tex., to serve the refinery of Coltex Refining Co. Present plans contemplate that the line shall originate at Grandfield and pass through Beckett, Cyril and Cushing. Details of the size, capacity, etc., will be furnished upon receipt of the survey from Ford, Bacon & Davis, Vice President Albert Finston of Bell Oil & Gas Co. said.

The four companies have plants in Oklahoma of approximately 5,000 bbls. each. The purpose of the proposed line is to put them in more favorable position to compete with companies having gasoline pipe lines or crude lines.

Carl Mayhall, vice president of Anderson-Prichard, stated his firm is figuring on the extension from Grandfield to Colorado, Tex., to serve the Coltex Refining Co., jointly owned by Anderson-Prichard and Standard Oil Co. of Texas.

O.N.G. Line Completed

Completion of the 60-mile 10- and 8-inch natural gas line to Enid from the Marshall, Lovell and Crescent oil fields in Logan County by Oklahoma Natural Gas Co. will supplant the temporary connection with Consolidated Pipe Line Co. from Wheeler County, in the Texas Panhandle field, to Wichita, Kans.

Negotiations for the marketing of the gas from wells of Shell, Sinclair Prairie and Eason Oil Co. began when washouts halted the flow from the Panhandle by way of the Consolidated line. The line is 10-inch from Enid to Marshall and 8-inch from Marshall to Lovell and Crescent and cost $400,000.

Sayre Gas Line

West Oak Gasoline Co. has awarded a contract for welding a 14-mile 10-inch gas line in the vicinity of Sayre, Okla., to Frenchies Welding Works. Stovepipe system of construction and oxyacetylene welding by lindeweld method are to be employed.

Welding Contracts

H. C. Price Co. of Bartlesville, Okla., has been awarded contract by Pacific Gas & Electric Co. for electric welding 44 miles of 10-inch and 12-inch from the Rio Vista field to Dawson, Dixon and Napa Junction, Calif.; 12 miles of 8-inch from Davis to Woodland, Calif.

Muskegon Gas Seeks Line

Muskegon Gas Co. has petitioned the Michigan State Public Utilities Commission for permission to take over the assets and liabilities of American-Michigan Pipe Line Co. The commission set July 22 for a hearing on the petition. The pipe line company transports natural gas from the Austin field in Mecosta County to Muskegon, where it is distributed by the Muskegon Gas Co.

New Michigan Lines

SAGINAW, Mich., July 19.—Pipe line facilities of both the north and south Buckeye Township, Gladwin County, oil fields will be materially increased within the next two weeks with the announcement of a new line to serve the southern pool exclusively, and additions to the take of two other lines serving both the north and south fields.

The Rex-McClure interests announce their Shamrock Pipe Line Co. to serve the south (Oard) pool exclusively will be completed by August 1. It will provide an outlet of 4,000 bbls. daily to Coleman, approximately 18 miles. Tanks have been erected in the northwest part of section 35.

Simrall Pipe Line Corp. announces that booster pumps will be installed on its line, which serves both north and south pools. The pumps will increase the capacity of the line by 6,000 bbls. daily, to 16,000 bbls. The Simrall line has been the only line to serve the south pool, and operators have been handicapped in moving even a strictly prorated output. Most of its take has come from the north pool.

McClanahan-Leonard Pipe Line Co., which has been more or less a private pipe line for Mammoth Producing & Refining Corp., also will increase its take from the north (Wicklund) pool by about 12 wells. This line had not reached its 4,500-bbl.

Refinery Expansion

Richfield Contract Let to Braun

LOS ANGELES, Calif.—Contract to build the new Richfield Oil Co. refinery at Watson, Calif., has been let to C. F. Braun Co., local engineering concern. Work to be executed by the company will entail an expenditure of approximately $4,000,000 for labor, materials and equipment. In addition to the basic contract another $1,000,000 will be spent by Richfield for other work and equipment appurtenant to the erection of the new refinery.

E. C. Herthel, in charge of refinery development, and E. W. Isom, vice president of Sinclair Refining Co. These men supervised the engineering work of designing Richfield's refinery

Two modern combination crude topping and cracking units are to be installed, each of these units to have a daily capacity of 30,000 bbls. They will increase the company's existing refinery capacity roughly 25 per cent. In addition to the combination units and a gasoline treating and finishing plant, a polymerization plant with a daily capacity of approximately 6,000,000 feet of gas will be built. The new plant will be designed to use electric power almost exclusively.

Bryson Plant Operating

FORT WORTH, Tex.—Kraco Refining Co. has completed erection of its 2,000-bbl. skimming plant at Bryson, Tex., and is now operating the plant at 1,500 bbls. per day. John Kraker, of Gladewater, Tex., is owner of the new plant. Crude from Cockburn and Harper wells northeast of Bryson is being run to the plant.

To Remodel Kansas Refinery

CHICAGO.—M. H. Robineau, president of Bay Petroleum Corp., Denver, Colo., has signed a license contract with Universal Oil Products Co. whereby the cracking equipment of Bay's McPherson, Kans., refinery will be converted to Dubbs operation. The plant, which until June 1 was operated under license from Gasoline Products Co., was recently purchased by Bay from Dickey Refining Co. Universal engineers are now at the McPherson plant making changes to bring the cracking operations in line with Dubbs principles and to increase present crude and cracking capacity of the plant. Plans call for the skimming capacity to be increased to 4,000 bbls. per day and the cracking capacity to 2,000 bbls.

Cracking Developments Discussed

Development of the Equiflux furnace, which permits cracking at higher temperatures, is increasing yields of gasoline from heavy residual stocks by as much as 10 per cent, Dr. K. M. Watson of Universal Oil Products Co. told the West Virginia manufacturing department of the National Petroleum Association, at its recent meeting held at Charleston, W. Va.

The improvement in cracking made possible by the new furnace is of exceeding importance, Doctor Watson pointed out, because the trend is steadily toward the cracking of more heavy oils and less gas oil, the latter finding an increasing market as diesel fuel and domestic furnace oil.

R. D. Lowe, general manager of Elk Refining Co., welcomed the guests and J. B. Northrop, superintendent of the Ohio Valley Refining Co. and chairman of the West Virginia manufacturing group, presided at the banquet.

daily limit. All of its take is from the north pool, although both the McClanahan line and the Pure Transportation Co. line pass through the south pool.

The application of Gerritt Van Der Leest for permission to construct a crude oil pipe line from the new Allegan County field to Lake Macatawa, Ottawa County, is before the Michigan Public Utilities Commission. The hearing has been set for September 8.

Natural Gasoline

Production Lower in May

Daily average production of natural gasoline for May, 1937, was 5,403,000 gallons, according to the monthly report prepared by the Bureau of Mines. This was 72,000 gallons lower than the daily average for April, but materially higher than the 5,314,000 gallons daily average for the first five months of the year, and almost 1,000,000 gallons above the daily average for May, 1936. The four most important fields, the Panhandle, East Texas, Kettleman Hills and Oklahoma City, showed but little change in daily output.

The only state to show a material increase was Oklahoma, while the largest percentage decline was shown in the Appalachian district. Production of the various districts, in gallons, was as follows: Appalachian, 5,689,000; Illinois, Michigan and Kentucky, 1,008,000; Oklahoma, 40,665,000; Kansas, 4,624,000; Texas, 49,936,000; Louisiana, 7,881,000; Arkansas, 1,014,000; Rocky Mountain, 5,949,000; and California, 50,730,000.

Stocks at refineries and at plants and terminals increased 29,274,000 gallons to 251,538,000 gallons on May 31 as compared with stocks of 222,264,000 gallons on April 30. Stocks at refineries totaled 124,530,000 gallons, of which 105,630,000 gallons were held by California refiners. Stocks of naturals at plants and terminals amounted to 127,008,000 gallons on May 31.

Shipments to jobbers and retailers, and exports totaled 22,176,000 gallons during May, or 5,124,000 gallons less than in April. The average vapor pressure of all major classes of shipments except those to refinery-owned bulk plants declined. The weighted average vapor pressure of all shipments in May was 19.37 pounds, compared with 19.55 pounds in April.

Carbon Black Tax Ruling

AUSTIN, Tex.—Regardless of method of manufacture, all carbon black must pay the tax imposed by the omnibus tax law, District Judge Ralph Yarborough ruled, sustaining constitutionality of the tax, and ordering Peerless Carbon Black Co. to pay the state $1,731 in taxes.

Attorney General William McCraw said this was the first case involving enforcement of the carbon black tax law, enacted in 1936.

Valley Mayors Consider Rates

HARLINGEN, Tex.—A campaign seeking reduction in domestic and industrial gas rates in the Lower Rio Grande Valley is to be launched by the mayors of valley cities, according to announcement by Mayor Hugh Ramsey of Harlingen.

Mayor Ramsey said the matter has been discussed at two meetings of valley mayors, and decision has been reached to seek action. The first proposal is to make a survey of maintenance and operation costs from the gate to the burner, and the second alternative will be to invite new franchises to come into the valley.

Natural Gas News

A.G.A. Nominations

The general nominating committee of the American Gas Association will submit the following nominations for officers at the annual convention in Cleveland, Ohio, in September:

President—N. C. McGowen, president, United Gas Public Service Co., Shreveport, La.; first vice president—Conrad N. Lauer, president, Philadelphia Gas Works Co., Philadelphia, Pa.; second vice president—Walter C. Beckjord, vice president, Columbia Gas & Electric Corp., New York; treasurer—J. F. Rooney, assistant to executive vice president, Consolidated Edison Co. of New York.

N. C. McGOWEN

R. W. HENDEE

Directors—two-year terms: F. H. Adams, vice president, Surface Combustion Corp., Toledo, Ohio; Charles M. Cohn, vice president, Consolidated Gas, Electric Light & Power Co., Baltimore, Md.; J. S. DeHart, Jr., president, Isbell-Porter Co., Newark, N. J.; L. B. Denning, president, Lone Star Gas Co., Dallas, Tex.; C. E. Gallagher, president, East Ohio Gas Co., Cleveland, Ohio; George S. Hawley, president, Bridgeport Gas Light Co., Bridgeport, Conn.; B. J. Mullaney, vice president, Peoples Gas Light & Coke Co., Chicago; Otto Snyder, president, New York Power & Light Co., Albany, N. Y.; T. J. Strickler, vice president, Kansas City Gas Co., Kansas City, Mo.

The following members have been nominated by section nominating committees to serve as section officers for the next association year:

Natural Gas Department: Chairman, Robert W. Hendee, Colorado Interstate Gas Co., Colorado Springs, Colo.; vice chairman, Thomas R. Weymouth, Columbia Gas & Electric Corp., Pittsburgh, Pa. Nominating committee: William Moeller, Jr., Southern California Gas Co., Los Angeles, Calif., chairman; Frank L. Chase, Lone Star Gas Co., Dallas, Tex.; John B. Tonkin, Peoples Natural Gas Co., Pittsburgh, Pa.

Manufacturers section: Chairman, Merrill N. Davis, vice president, S. R. Dresser Manufacturing Co., Bradford, Pa.

Texas Gas Output at High Point

AUSTIN, Tex.—Texas produced 1,683,843,000 feet of gas daily in May from 2,820 wells in 313 gas reservoirs, according to the State Railroad Commission.

The report showed 1,073,995,000 feet of sweet gas from 2,490 wells and 609,848,000 feet of sour gas from 330 wells.

Disposition of the dry gas was 56.43 per cent for light and fuel, .59 per cent for gas lift and repressure, 3.61 per cent for lease and drilling operations and 39.37 per cent to plants for gasoline extraction.

A total of 2,051,184,000 feet of gas was processed by 127 gasoline plants which recovered 1,978,160 gallons of 27-70 grade gasoline.

Thirty-six carbon black plants reported 811,663,000 feet of residue gas burned to produce 1,319,484 pounds of carbon black daily. They averaged 1.63 pounds of black per 1,000 feet of residue gas.

O.N.G. Expansion

Oklahoma Natural Gas Co. has acquired a portion of the Greater Seminole field system of Independent Natural Gas Co. in Seminole, Pottawatomie, Pontotoc, Garvin, Hughes and Okfuskee counties, Oklahoma.

The deal includes 298 miles of pipe line that will extend the present system of Oklahoma Natural 15 miles due west and 24 miles south of its present terminals. The deal also adds to the proven reserves tapped by Oklahoma Natural around 19,000,000 feet of gas.

Michigan Sells Oil Rights

SAGINAW, Mich.—The Michigan department of conservation has completed sale of the mineral rights on 13,300 acres of state oil lands. The price paid was $4,800, plus one-eighth royalty on all oil or gas produced. This sale swells to approximately 150,000 acres the total of state-owned lands on which mineral rights have been sold.

NO ICE TODAY

'STARCOR' DOES THE TRICK IN DEEP, HOT HOLES

"THIS hole's 7500 feet deep. Temperature 200 degrees. How can I keep cement from setting—use ice?" The operator didn't know it, but Lone Star research chemists answered his question when they perfected 'Starcor'. On this job, for example, without ice or any other makeshift, 800 sacks of 'Starcor' were pumped into place on each stage, with a pressure rise of only 2500 lbs. It took more than 2 hours. At 200 degrees, ordinary cement may set up in 30 minutes!

That is why it pays to use an Oil Man's cement—because the safety factor against quick-set is built right into the cement itself. 'Starcor' mixes easily in a velvet-smooth, gel-like slurry that pumps freely at 15 or 16 lbs. Use 'Starcor'* for deep wells, high temperatures and extra sulphate-water resistance. Use 'Incor'* on wells of ordinary depth. Two cements, made-to-measure for oil-well work—freshly stocked by your nearby dealer for immediate service. *Reg. U. S. Pat. Off.

TWO PORTLAND CEMENTS—BOTH MADE FOR OIL WELLS

USE 'STARCOR'—for deep wells, high temperatures or extra sulphate resistance.

USE 'INCOR'—for wells of moderate depth.

ENGINEERING AND OPERATING SECTION

Presenting modern developments in operation of producing properties, refineries and gasoline plants, and pipe lines, including petroleum research in the field and laboratory

This Week

METHODS FOR STORING DRILL CUTTING SAMPLES—By Paul Reed . . . . . **Page 53**

Evidence of the interest being displayed in rotary drill cuttings are the tons of samples stored in company warehouses. The large amount of cuttings handled requires a ready, up-to-date system of filing. Various methods used by Mid-Continent companies in handling the large volumes of cuttings are described.

TALCO OPERATORS ENCOUNTER MANY PUMPING PROBLEMS—By Mitchell Tucker . . . . . **Page 42**

Of 368 wells now producing in the Talco field, 361 are on pump. Thus all operators in that field have been faced with several lifting problems due to the chemical and physical properties of the crude and rapidly increasing volumes of water. Heavy equipment pumped with a long, slow stroke has been generally adopted to prevent oil emulsification.

PROBLEMS FROM READERS—By L. G. E. Bignell . . **Page 56**

Drilling rathole for kelly. Ratio of wildcats that produce. How many gallons of water to a cubic yard? Oil beneath a water-bearing formation. What is meant by the geologic term, "stray sand"?

TECHNICAL QUESTIONS—By C. K. Francis, Ph.D. . . **Page 59**

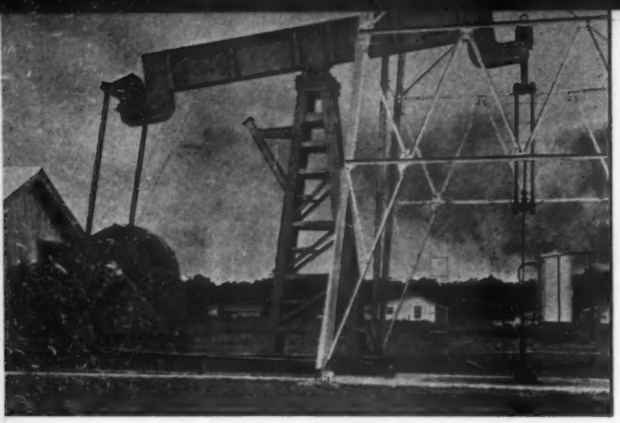
Analyses of oil from Placedo field of Texas. Chemical nature of lube fractions from Mid-Continent oil. Naphthas containing aromatics are powerful varnish diluents. Quality of gasoline manufactured by the Cannon process and its properties.

ILLUSTRATED OPERATING IDEAS . . . . . **Page 51**

Special designed engine house for butane-electric rig. Pump operated off crank end of walking-beam. Water level indicator for cooling system. Convenient rack for lubricating-oil drums.

DEASPHALTING, ACID TREATING OF LUBRICANTS WITH PROPANE—By W. H. Bahlke, E. W. Thiele, C. E. Adams and B. Ginsberg . . . . . **Page 44**

Experimental work and development of a less expensive process of manufacturing lubricating oils from Mid-Continent residuum and operation of the commercial plant is described. A short residuum is deasphalted and acid treated in propane solution, followed by cold settling and percolation in naphtha solution.



Talco Operators Many Pumping

Fig. 1—Short belt-drive standard rig. This represents the heaviest type of Talco pumping installation, having a maximum polish-rod load rating of 25,000 pounds and pumps at 20 strokes per minute

By MITCHELL TUCKER

The lifting problem in the Talco field of eastern Texas is now before all operators there as 361 of the present 368 producers are on the pump, leaving only seven flowing wells in the field. All wells are now equipped to pump upon completion. Practically all data on proper pumping practices have had to be obtained through experimentation, as in the recent experience of the industry no similar fields have been developed which would serve as a guide when the lifting of oil became a problem. Therefore, the trial and error method has been used in the selection of equipment, in the correct pumping cycles to meet all variable conditions, and in the reduction of intervals between pulling jobs.

The physical and chemical characteristics of Talco crude are responsible for the rather difficult pumping situation prevailing there. By reason of the heavy, low-gravity (average 22 degrees A.P.I.) asphaltic-base oil, the fluid column to be lifted is heavy and viscous. Its average specific gravity is .92, and the close similarity to that of water presents other problems in the prevention of coning in large water producing wells, and of pumping so as to minimize the formation of emulsions through the pumping equipment.

Depth of wells, averaging about 4,300 feet, does not indicate a troublesome field. However, in the face of rapidly increasing water volumes in certain portions of the field (particularly in the townsite area) and in view of the heavy loads imposed by the crude itself, the trend is definitely toward heavy and substantial equipment at Talco.

This crude oil is very much undersaturated with gas, so any flowing pressure or fluid level must come from the hydrostatic head encroaching along the structural flank. The last bottom-hole survey showed a field average of 1,798 pounds; individual wells ranging from a maximum of 1,885 pounds to a minimum of 1,752 pounds. Fluid level varies widely from well to well, depending upon manner of well completion, structural position, extent of water encroachment, and other contributing factors. Likewise, polish-rod loads vary, ranging downward from a maximum of about 17,500 pounds.

Potential tests are required of all wells upon completion to determine if they can make the minimum, after which they are granted the per-well allowable of 75 bbls. per day if they make that much or more on potential test. If not, they are granted a daily allowable equal to that pumped on potential test. This manner of determining potentiality has not been a burden upon pumping equipment as in certain western Kansas fields. Also it has exerted no real influence upon the selection of pumping facilities as the allowable can be obtained in a few hours in the majority of wells.

Pumping Cycles

Generally speaking, a high volumetric efficiency is not looked upon as one of the objectives of efficient Talco pumping for a number of important reasons. Experience has shown that the slow, long stroke, ranging from 12-48 inch to 16-40 inch, is the most successful to meet all conditions. The Paluxy sand body is known to be very porous and conducive to water coning when conditions encourage this intrusion. Slow and constant pumping is desirable to minimize this tendency, and prevent the necessity of pumping off a water head which forms in certain parts of the field during shutdown periods on intermittent pumping schedules. Further, this slow, long stroke tends to minimize the caving of the porous sands, with an accompanying reduction in pulling jobs, sanded tubing, and other allied well troubles.

The close similarity between the specific gravity of the oil and the relatively pure water presents a problem in minimizing any coning or by-passing of the water up through the oil column while pumping. The long and slow stroke has proven to be most suitable under these conditions.

The treating problem at Talco has always been serious. One of the contributing reasons is that the low initial boiling point of the crude (146° F.) is so near to that of the prevailing bottom-hole temperature (147° F.) that perhaps a turbulent condition tends to tighten the water-oil emulsion. The long slow stroke is most effective in minimizing this tendency, many operators believe. Gear boxes are provided on the majority of installations for the efficient employment of the retarded cycle.

Sulfur Corrosion

Although analyses show that Talco crude contains 2.70 per cent sulfur, it seems to occur and remain in a free state and not be conducive to the formation of hydrogen sulfide or other corrosive gases. Under present conditions this sulfur content of the oil has not constituted a serious problem. Many operators, however, are equipping their wells with sulfur-resisting underground equipment. Any addition of heat seems to augment the sulfur corrosion, so all treating plants and hot lines at refineries have had to make special provisions for the prevention of corrosion.

Well Trouble and Pumping

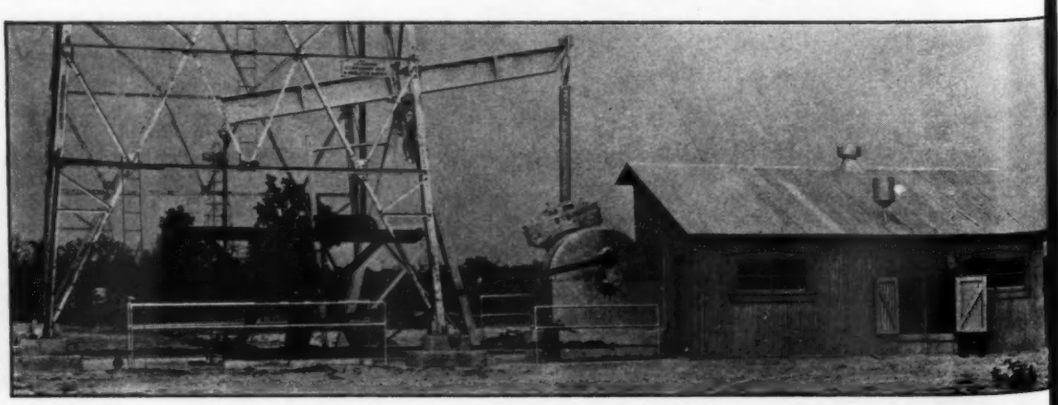
No uniformity is noted in the interval between pulling jobs from well to well. Certain wells have required pulling jobs on the average of every 30 days or less, while others have been pumping without a repair job for almost the entire life of the field. In seeking a reason for this condition, it is the general opinion that the manner of well completion and total exposed sand thickness greatly affects the well trouble at Talco, because of the loose and porous sand conditions. Records indicate that wells completed with an efficient liner, or cased through the sand and gun perforated, give much less trouble than those which are cased above the sand. Insert, grooved seal, and plunger-type barrels have been found most successful, as cup-type working barrels cut out too rapidly. Sanded-up jobs constitute the greatest portion of tubing jobs.

Almost all of the major Talco leaseholders have purchased their own portable pulling equipment. Two companies in the field do pulling and swabbing work on a contract basis. The average tubing and rod job costs about $90, barring unexpected delays and trouble. Rod jobs average about $35 to $40 each. Contract work is done at the rate of about $6.25 per hour. The great majority of cemented derrick floors have permanent anchors for the pulling machines. Usually five lines are strung up for a tubing job to permit necessary joints to be pulled in case of stuck barrel, and later the line ratio is reduced to afford more rapid pulling.

Types of Equipment

Many of the original installations at Talco have been found inadequate to handle the heavy loads imposed and have been replaced by heavier equip-

Fig. 2—Exterior view of heavy-duty, short center installation for pumping of three wells, two off the stroke post



Encounter Problems

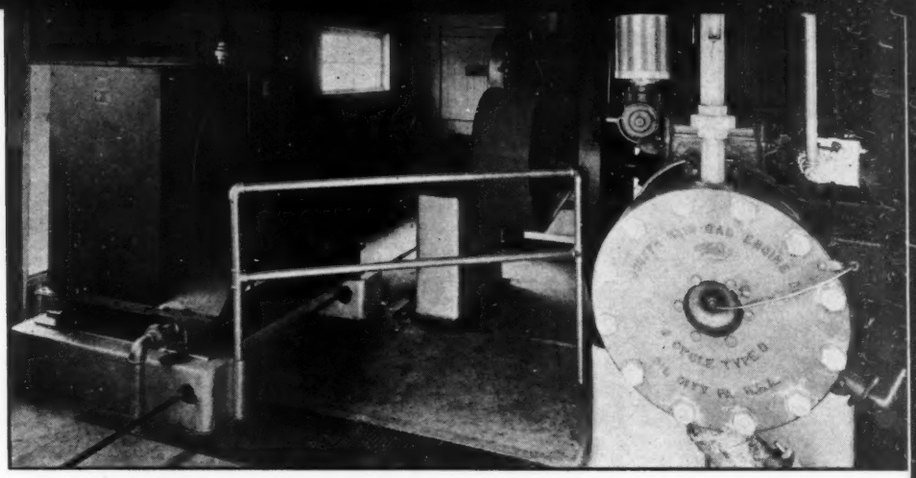


Fig. 3—Interior of installation shown in Fig. 2, showing short endless belt drive and engine cooling unit for the 45-hp. gas engine

ment. Certain operators who had stand-by equipment installed in the East Texas field moved it to their leases at Talco only to find the lighter units incapable of efficient operation after a few months' service.

As stated before, the trend is definitely toward heavier and more serviceable installations. The type varies in accordance with the wishes of the individual operator, and range from the heavy-duty, short-belt drive standard rig, 10-well geared powers, stroke-post or back-side cranking devices handling

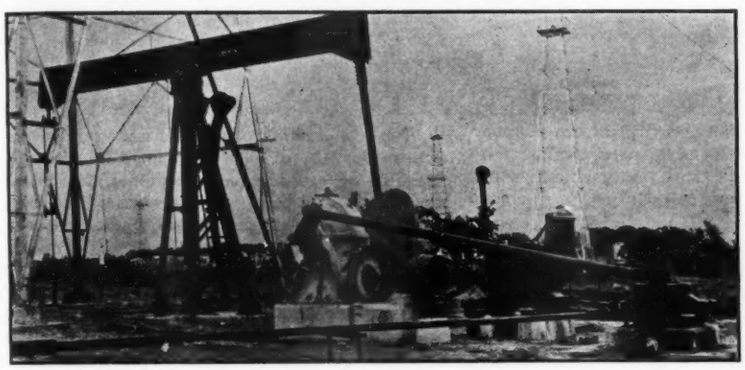


Fig. 4—Three-well installation, employing a six-cylinder gas engine, gear box, and backside-crank unit mounted on concrete base

two or three wells, and a few smaller pumping units either at small water producers or on temporary settings.

Figure 1 illustrates the heaviest type of pumping installation being operated in the field. This short center-drive standard rig is V-belt driven by a 45-hp. two-cycle gas engine through an 8-groove pulley-shaft into the gear box, where the speed is reduced and the power increased to a rating of 50-hp. at 20 strokes per minute. The gear box is employed at almost all of the heavier installations to facilitate the use of the long, slow stroke found so necessary to efficient pumping. This particular unit has a maximum rating of 25,000 pounds polish-rod load. A permanent cement floor has been laid at the derrick floor and back through the engine house. The operators using such equipment expect it to handle the wells throughout their entire life, regardless of how heavy the water volumes may become, and then be in shape for transfer to service in other fields.

Three-Well Installations

Figures 2 and 3 show the exterior and interior of a heavy-duty, short center endless belt installation for the pumping of three wells. A 40-hp., two-cycle gas engine is connected by short endless belt traveling through an upright idler to the pulley-shaft entering the gear box. From the counterbalance side of the box the central well is pumped on the beam. From the crank side of the gear box the stroke post is operated, imparting pumping motion to two jack wells operating off of 1-inch pull rods in direct line on the lease, counterbalanced in such a way as to minimize the load.

Particular attention is called to the outside view of this installation showing the half-house used for housing the power and transmission equipment. Obvious savings in concrete and steel building material are effected by this plan.

At this installation a band wheel is keyed on the shaft running from the gear box to the crank jack post, which is ready for service in any future workover jobs necessary at the well. An air blower is used for the exclusive cooling of this 45-hp. gas engine. The exterior view shows the doors cut in the side of engine house for the entrance of air, and the fan or air blower is shown at the left of the interior view.

Figure 4 shows another type of installation employing the six-cylinder gas engine with a six V-belt drive coming off the twin-disc clutch and driving the jack-shaft extending to the gear box, from which the well at the unit location is pumped on the beam off the counterbalance side. A pitman from the crank side exerts the necessary push-pull motion to the backside cranking unit shown mounted on concrete base. From this unit two other wells are pumped on the jack in opposite directions, so timed as to afford the best balance possible.

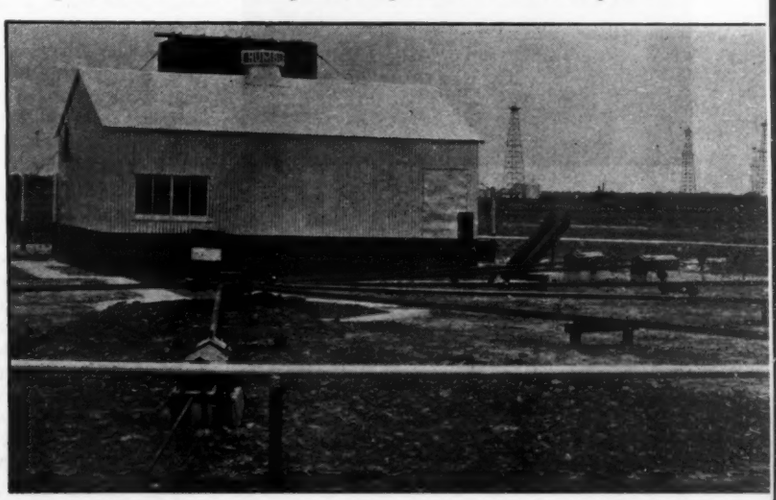
Only one major operator has gone to central powers in the field. To date they have installed thirteen 10-well, heavy-duty geared powers, although few of them are handling the capacity number of wells. Figure 5 illustrates a typical installation of this sort, showing the submerged geared power operating in an enclosed oil bath and at this particular time pumping eight wells in balanced form from the upper eccentric. Power is furnished by the 160-hp., two-cycle gas engine through a V-belt drive to the 20-groove pulley on the shaft extending out from the engine house to the gear box or power.

Fuller's Earth Industry in 1936

Consumption of fuller's earth in the United States has failed to keep pace with the growth of the petroleum industry in recent years though 90 per cent of the sales of these bleaching clays is used for refining petroleum products. Domestic production of fuller's earth in 1936, as reported by the Bureau of Mines, was 230,814 tons valued at $2,264,978, compared with 227,745 tons valued at $2,230,229 in 1935. Apparent consumption increased only 2 per cent, whereas petroleum refining jumped 10 per cent. More significant still, oil refiners made an all-time record last year, far ahead of their 1929 mark, whereas the quantity of fuller's earth used was 26 per cent less in 1936 than in 1929 and 31 per cent less than in 1930 when it reached its maximum of 328,642 tons.

To be sure, there is no really accurate barometer of the potential demand for fuller's earth or the amount of decolorizing that has to be done for the reason that no data are available as to proportion of possible lubricants removed at lubricating-oil refineries, where most of the fuller's earth is used. Nevertheless, the fact remains that relative quantities of fuller's earth have diminished since 1930—Whether the comparison is made on the basis of crude oil production, deliveries to refineries, or lubricant production. The obvious conclusion is that much of the expanded consumption of artificially activated earths, made from bentonite, and of acid-sprayed earths, such as are produced especially in Texas, have invaded the market for fuller's earth. New methods of oil refining likewise have threatened to diminish the use of fuller's earth but inquiries in the trade lead to the conclusion that chemical processing of lubricating oils may have been overdone.

Fig. 5—Ten-well, heavy-duty geared power, the only type of central power installation being used at present in the Talco pool



Deasphalting, Acid Treating of Lubricants With Propane

By W. H. BAHLKE, E. W. THIELE, C. E. ADAMS and B. GINSBERG
Standard Oil Co. (Indiana), Whiting, Ind.*

The investigation which led to the installation of the plant to be described in this paper was undertaken with a view to finding a less expensive process for the manufacture of lubricating oils from Mid-Continent residuum that would also, if possible, make oils of improved quality. The process which was then in use, and had been in use for a long period of years, involved the treating of a long residuum (about 60 per cent of the crude) with 91 per cent sulfuric acid and neutralizing with caustic, the exact amount of acid used varying for various grades of finished oil. The treated residuum was reduced to viscosity and flash by fire and steam in atmospheric shell stills. That part of the product which was intended for

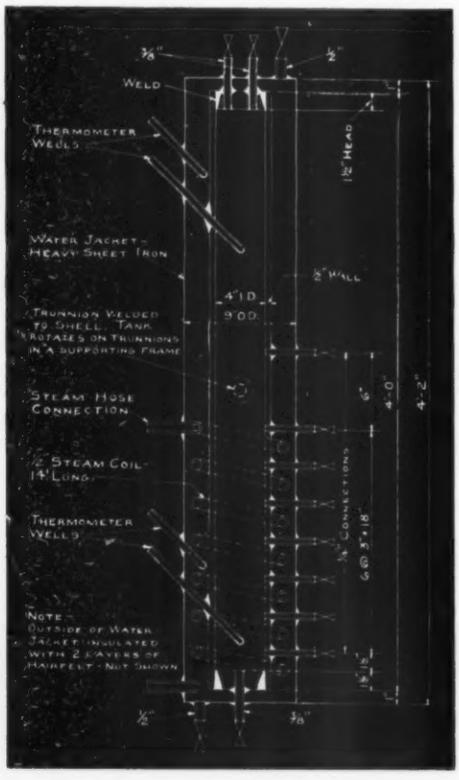

WELD
THERMOMETER WELLS
WATER JACKET - HEAVY SHEET IRON
TRUNNION WELDED TO SHELL. TANK ROTATES ON TRUNNIONS IN A SUPPORTING FRAME
STEAM HOSE CONNECTION
STEAM COIL - 14' LONG
THERMOMETER WELLS
NOTE - OUTSIDE OF WATER JACKET INSULATED WITH 2 LAYERS OF HAIRFELT - NOT SHOWN

Fig. 1—High-temperature deasphalting tank

bright stock of a superior green cast was then hot contacted with fine clay. Subsequent steps involved cold settling and percolation in naphtha solution.

Preliminary tests and calculations showed that of the various possible improved processes, the most promising consisted in deasphalting and acid treating a short residuum in propane solution, (as developed by Bray, U.S. Pat. 1,949,989) subsequent cold settling and percolation being conducted as before. Accordingly, experiments on both deasphalting and acid treating were undertaken, with a view to working out the details of the process and providing data for the design of a commercial plant to be erected at the refinery at Whiting, Ind.

*This paper is a condensation of one presented at the Second World Petroleum Congress, Paris, 1937, under the title, "Deasphalting and Acid Treating in Propane Solution for the Production of Bright Stocks and Cylinder Stocks."

Laboratory Work on Deasphalting

The apparatus used in the study of deasphalting of Mid-Continent residuum is shown in Figure 1, which is self-explanatory. The results obtained on residuums of various viscosities are summarized in Tables 1, 2 and 3 and the pertinent data with regard to 298 Saybolt (210° F.) residuum, which was most thoroughly investigated, are shown graphically in Figures 2, 3 and 4.

It will be noted that to attain a given result the temperature has to be higher for refinery propane than for pure propane. This is probably due to the butane content rather than the unsaturate content, since glass-tube studies have demonstrated that the solubility relations of oil and propane are quite similar to those of oil and propylene, but different from those of oil and butane in the required direction.

Examination of Figure 4 shows that the color of the oil obtained becomes lighter as the percentage of propane is increased or the temperature is raised. The former effect is particularly striking, since the higher propane ratio means that a given volume of oil is contained in a greater volume of solution, and that therefore the color of the layer before depropanizing must be very much lighter when the oil concentration is lower. In other words, the colored material is very insoluble in propane, and is only kept in solution by the oil. It may also be noted that there is no close relation between color and viscosity.

It will be seen in Table 1 that the propane concentration in the lower layer is remarkably uniform at about 50 per cent by volume. There is some trend toward lower propane concentrations at the lower temperatures.

The behavior of the yield curves in Figure 2 can be readily explained in terms of the ordinary theory of a three-component system of two phases. This is brought out by Wilson and Keith[1]; Figures 8 and 9 in their paper are based on the data of Table 1.

In addition to the single-stage work, some countercurrent experiments were tried, and were shown to increase the yield of a given quality of oil, with the formation of a harder asphalt. As it was not desirable to go in this direction, the countercurrent test results were not used in design of the commercial plant.

The experimental equipment used in studying the effects of acid treating the deasphalted oils in propane solution was a steel autoclave of 1.5 gallons capacity equipped with a flanged top, a gauge glass, a motor-driven stirrer operating through a stuffing box in the removable lid, and an acid reservoir with bottom draw and upper free space both manifolded into the autoclave through the lid. This equipment would handle satisfactorily one-third gallon of viscous oil in a four-to-one propane to oil solution. A bottom drawoff was provided for sludge removal—the treated oil being removed by propane pressure through a pipe extending through the lid to a point within the autoclave well above the sludge level.

The technique of operations was as follows: A known quantity of oil was weighed into the autoclave by difference from a container. The lid was then bolted into place, and the required volume of propane added from a pressure cylinder, cooling the autoclave and heating the cylinder as necessary. The propane volume introduced was measured by calibrated gauge glass levels. The oil and propane were then put into solution in one another by stirring, the small amount of viscous oil in the sludge drawoff pipe being mixed in by inverting the autoclave one or more times. By laying the autoclave on its side, the solution was allowed to drain out of the gauge glass into the treating chamber, whereupon the gauge glass was valved off from the autoclave proper. The equipment was then immersed in a suitable bath for control of treating temperature. With the stirrer going, a measured quantity of acid, previously introduced into the acid chamber, was allowed to drop into the propane-oil solution. An agitating time of 10-20 minutes was allowed, followed by a settle of one to six hours. Sludge separation was always rapid.

In practice, treated oil was withdrawn through the overhead drawoff. This, of course, left a portion of the oil-propane solution in the autoclave. Yields were determined by drawing the sludge, introducing water into the autoclave and then drawing the remaining oil floating on the water surface. Only the first oil draw was used in study-

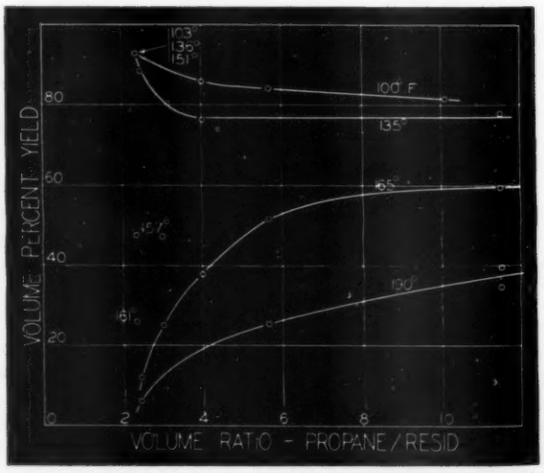


Fig. 2—Yield curves for the Mid-Continent residuum

[1]*Proc. Am. Pet. Inst.* 15, III, 106 (1934).

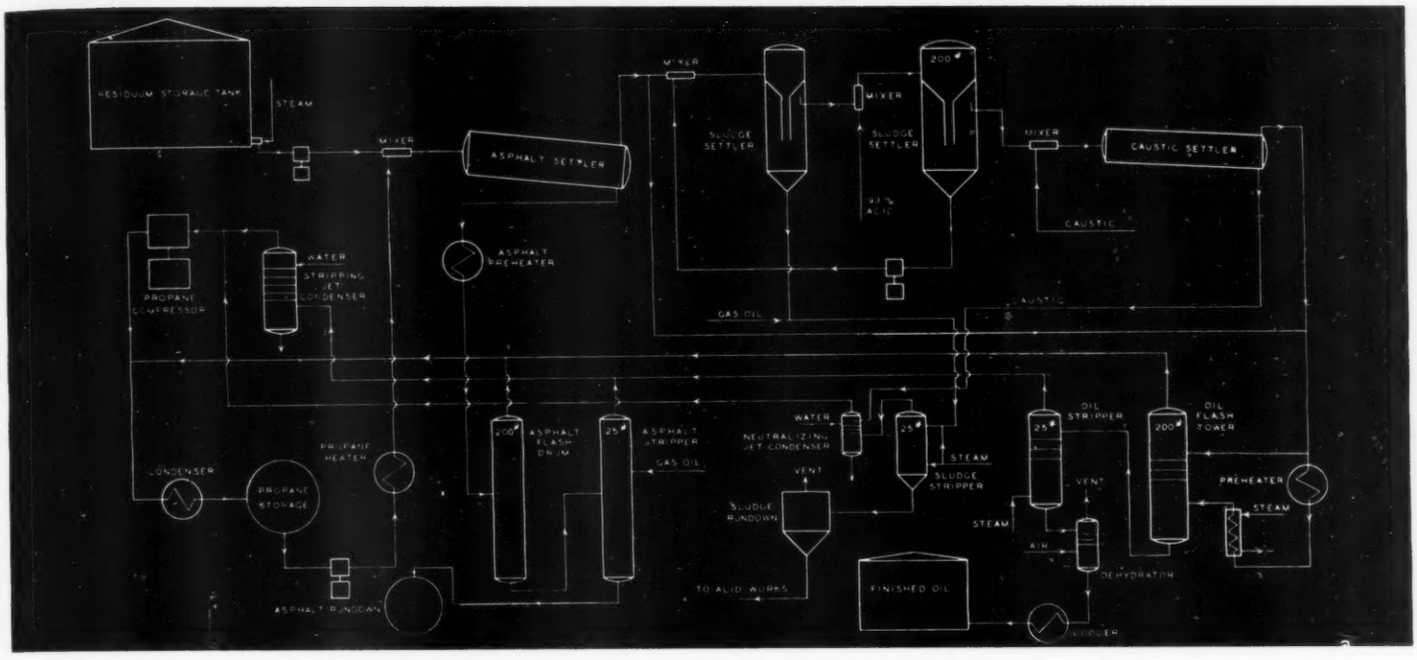


Fig. 5—Simplified flow diagram of the commercial plant at Whiting, Ind.

ing properties. The treated oil, freed of propane, was reintroduced into the cleaned autoclave, the original propane to treated-oil ratio regained by introduction of fresh propane, and the sour solution washed by introduction of excess 3 per cent sodium hydroxide solution and stirring. Sour oil acidities are of the order of 1.00-1.25 mg. potassium hydroxide per gram viscous oil. The caustic wash was usually followed by similar water washes, but these do not seem to be required as no ash was found in the treated oils whether or not the caustic washes were followed by water washes.

Effect of Quality of Propane—Earlier treats in this study were made using refinery propane. These treats invariably led to poor results, giving, even with large acid ratios, dark oils requiring excessive clay for attainment of specification color. Cast was always poor, and high temperature contacting was found to be necessary for production of the desirable bloom. Table 4 indicates the results to be obtained by treating in propane containing unsaturates. The stock used was a 228 viscosity deasphalted residuum obtained by deasphalting in propane a 300 viscosity Mid-Continent residuum.

A true color of 470-520 before percolation was required to give an average filter yield of 500-550 gallons per ton of clay.

The cast of all the above oils was satisfactory after contacting with 1.0 pound of acid-treated clay per gallon followed by percolation but entirely unsatisfactory when finished to color by straight percolation. Experiments with mixed propane showed that as little as 10 per cent plant propane in natural gas propane continued to lead to a stock of objectionable bluish-green cast.

Effect of Propane Ratio—The effect of propane ratio during treating on yield and quality of finished oil was not studied in great detail. Treats were made almost entirely using 3.4 or 4.0 volumes of propane per volume deasphalted oil corresponding to 3.0 or 3.5 volumes propane to one of residuum in the deasphalting step.

Effect of Temperature and Acid Strength—Treating temperature was varied from 110° F. to 0°F. without noticeable effect on treating results. Acidity of treating acid was varied from 89 per cent to 98 per cent with progressive improvement of 91 per cent and 93 per cent acid over 89 per cent as a color remover. Use of 98 per cent acid, however, gave results substantially identical with 93 per cent acid. Above 98 per cent acid, increasing danger of sulfonation with subsequent washing difficulties

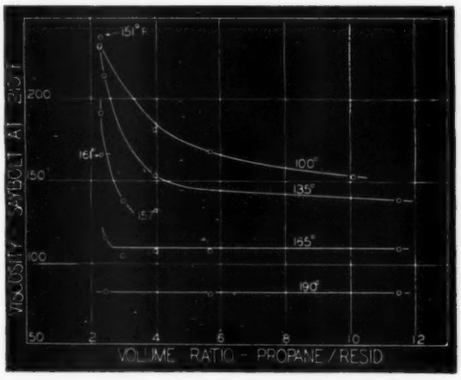


Fig. 3—Effect of temperature and percentage of propane on the oil viscosity

might be expected, although this was not verified by test.

Treating yields, on deasphalted oil basis, of 86-87 per cent for 0.25-pound 93 per cent H_2SO_4 per gallon, of 80-82 per cent for 0.5-pound acid, and of 76-78 per cent for 0.75-pound acid may be considered representative; with somewhat higher treating yields on the more heavily deasphalted stocks, and somewhat lower treating yields on the more lightly deasphalted stocks. Table 5 shows a summary of typical experiments with various amounts of acid.

Choice of Operations for Commercial Plants

Because of the great fluidity of the propane, it was fairly certain that orifice mixing would be adequate and hence no mechanical mixers were installed. Also because of the relatively low acid requirement per gallon of oil-propane mix, it was feared that small amounts of water in the mix might weaken the feed acid enough to reduce the efficiency of the operation. Accordingly a two-stage countercurrent acid treating step was installed. The sludge would then dry the oil so that the fresh acid would meet bone-dry oil. It was also hoped that this arrangement would give better efficiency in the use of acid, although no experiments were made on this point because of the expense involved. (Actually, the two-stage operation is very effective, the acid consumption being little more than half that predicted on the basis of the single-stage laboratory results.)

In order to give flexibility to the plant, the asphalt-settling drum was designed to withstand a pressure considerably above the vapor pressure of propane at 160° F. It was believed on the basis of more conventional treating processes that treating at temperatures much above 110° F. would be unsatisfactory. The two stages of acid treating were therefore designed so that part of the propane in the mix could be flashed off to reduce the temperature, before the sludge was settled out. This arrangement was never used, as deasphalting temperatures have not gone above 110°. The rise of temperature on acid treating has turned out to be too small to measure.

The greater part of the propane must of course be taken off at a pressure high enough to permit of condensing the vapors directly with the available cooling water. The remainder is stripped out at a lower pressure and must be recompressed. To keep down the initial expenditure, this part of the

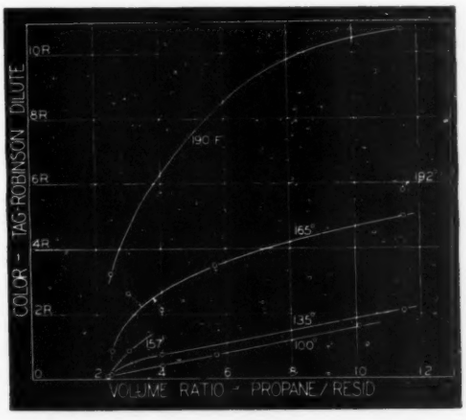


Fig. 4—Effect of propane per cent and temperature on oil color

†"THE RANGE FATHER"—by Charles M. Russell

Art Goes to the Bottom of Oil Wells

Art is more than paintings, statuary, stained glass windows, cathedrals and symphonies—art is beautiful, but art is also practical. In this sense, Axelson Pumps and Sucker Rods are works of art. ☆ Could you make an oil well pump or a string of sucker rods even though you had the necessary equipment? We doubt it, for some of the knack of forging alloys, of casting iron, of fabricating materials, has been handed down through centuries. ☆ Today, knowledge piled on knowledge, inherited skill improved by constant study and application, and the use of perfected processes and machinery are the comprehensive means by which Axelson artisans design, fashion and finish Axelson Pumps and Sucker Rods to the limit of artistic mastery. Axelson Manufacturing Company, P. O. Box 710 — Vernon Station, Los Angeles. St. Louis. 50 Church St., New York City. Tulsa. Mid-Continent and Eastern Distributor: Frick-Reid Supply Corp. Rocky Mountain Distributor: Great Northern Tool and Supply Company.

☆ ☆ ☆

†Charles M. Russell had the rare ability to leave an accurate and artistic record of the life of animals. In this bronze, a stallion is protecting the mares and colts from wolves or coyotes. These proud fathers were always on the lookout, and wolves were not allowed to get near the herd. ☆ This is the first time that permission has been granted for the reproduction of this bronze. A reproduction of this picture, suitable for framing, is available upon request to the Axelson Manufacturing Co.

AXELSON PUMPS AND SUCKER RODS

TABLE 1—DEASPHALTING 298 VISCOSITY AT 210° F. SAYBOLT MID-CONTINENT RESIDUUM IN PROPANE

Residuum gravity 18.0° A.P.I.

Run number	59	52	57	62	63	66	60	65	67	97	98	94	61	56
Kind of propane	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Volume propane/volume residuum	2 3	4 0	5 7	10 1	2 4	2 3	4 0	11 5	2 3	2 3	3 0	2 3	2 4	3 0
Deasphalting temperature, °F.	103	106	102	102	135	136	138	136	151	157	157	161	167	164
Deasphalting pressure, lb. gauge	....	205	....	....	....	....	....	280	....	....	....	....	....	....
Volume per cent propane in: Upper layer	68	81	87	92	74	71	83	94	70	....	....	....	82	87
Lower layer	....	45	44	....	43	....	51	47 5	....	....	....	....	58	55
Deasphalted and depropanized upper layer:														
Viscosity at 210° F. Say.	233	182	168	153	215	232	153	139	238	192	139	166	115	104
Gravity, °A.P.I.	19 7	20 8	22 0	22 0	20 3	20 2	22 1	22 2	19 6	20 3	22 6	21 4	23 3	23 6
Color in 85 per cent w.w.	1/2R	3/8R	3/4R	1 1/8R	1/8R	1/8R	3/4R	2 1/8R	1/2R	1/8R	3/8R	1/8R	3/8R	2 3/8R
Carbon residue	4 38	....	2 85	....	....	....	....	....	....	....	....	....	2 4	....
Viscosity gravity constant	.854	.849	.840	.842	.851	.851	.842	.843	.855	.852	.839	.845	.838	.836
Viscosity index	....	....	....	....	....	....	78	....	....	....	....	....	....	81
Volume per yield	93	86	84 2	81 6	88 5	93	76 4	78	93	47 5	47 2	26	12 2	25 1

Run number	55	50	58	54	51	64	99	42	43	48	40	41	44	47
Kind of propane	P	P	P	P	P	P	P	P1	P1	P1	P1	P1	P1	P1
Volume propane/volume residuum	4 0	5 7	11 5	2 4	5 7	11 5	11 5	3 8	4 6	13 3	5 7	6 1	5 7	5 0
Deasphalting temperature, °F.	166	166	165	193	191	192	192	96	99	104	156	160	164	191
Deasphalting pressure lb. gauge	....	....	400	....	515	....	....	165	....	....	340	....	365	490
Volume per cent propane in: Upper layer	88	91	94	91	94	96	....	80	86	93	87	....	89	93
Lower layer	56	50	47	51	50	51	....	....	47	....	50	....	50	55
Deasphalted and depropanized upper layer:														
Viscosity at 210° F. Say.	107	107	109	82	81	82	82	206	207	209	150	138	141	94
Gravity, °A.P.I.	23 5	23 7	23 4	25 2	25 2	24 8	24 8	20 8	20 8	20 9	22 0	22 1	22 1	23 7
Color in 85 per cent w.w.	2 1/2R	3 1/2R	5R	3 1/4R	8 1/2R	5 7/8R	10 3/4R	1/4R	1/4R	7/8R	3/4R	1R	3/4R	4R
Carbon residue	....	....	1 9	....	7 4	....	....	....	....	....	....	....	....	....
Viscosity gravity constant	.835	.835	.837	.830	.830	.832	.832	.847	.847	.846	.842	.843	.843	.838
Viscosity index	....	81	....	....	....	78	....	....	....	....	....	....	....	....
Volume per cent yield	37.7	51.5	59 6	6 3	25 5	34.4	39 4	90	89 5	86 1	74	67	68 7	35 3

P—Natural gas propane. P1—Refinery propane (containing approximately 80 per cent C_3 and about 30 per cent unsaturates).

system was designed for a pressure high enough to permit of the use of single-stage compressors. The increased stripping steam required was computed to be of little importance.

It was known from the laboratory work on acid treating that the acid sludge could not be handled without the addition of a light flux oil, but that flux oil, added before the propane was removed, would enable it to be easily handled. It was known that the simplest method of handling the asphalt involved the use of high-pressure steam (350 pounds or above). However, this was not available at the site, and to avoid installing a long line, fluxing with light oil was decided on, to make possible the use of 110-pound steam.

The size of the settlers for asphalt, sludge, and caustic could not be computed with any accuracy. From some experiments in a continuous vertical settler 10 inches in diameter, it was known that an upward flow of 10 feet per minute led to considerable entrainment in the case of the asphalt. Horizontal settlers were considered to be the best type, and as constructed a vertical settling rate of only a few inches per minute is called for. The necessity for drawing vapors from the vessel led to the choice of vertical settlers for the sludge. In this case the batch experiments suggested that the settling was probably quite rapid. A larger diameter was provided in the case of the second settler.

Lead linings were provided in the sludge stripper and the sludge rundown tank where dilute acid would occur and in the first sludge settler in which weak acid might at times be expected. It was realized that considerable corrosion might occur in some other places, but it was believed that it would be better to make the equipment of ordinary steel and to provide for the insertion of a large number of corrosion strips rather than to go to more expensive materials at the start, since the points where corrosion might occur and the best materials to use were problematical. This program involved the prospect that certain portions of the equipment might have to be replaced, but it seemed probable that these would be only a small part of the plant. (The results of nearly two years experience are discussed in a later section; it should be mentioned, however, that the lead lining in the first sludge settler was found to be superfluous.)

Description of Plant

Figure 5 gives a simplified flow diagram of the plant as it now operates.

The propane and residuum are pumped from storage through two orifice mixers in series to the asphalt settler, a drum 8 feet in diameter and 32 feet long with a slight tilt from the horizontal. The propane stream is split at the mixers, a portion entering each one. As the stream passes through the asphalt settler the asphalt settles to the bottom and is drawn off continuously by means of a liquid-level controller. The asphalt stream passes through a live-steam heater to the asphalt flash tower where the propane vapor passes out at the top to the propane condenser and from there back to storage. There are three propane storage drums of about 10,000 gallons capacity each. The asphalt is drawn off continuously at the bottom by means of a liquid-level controller to the asphalt stripper, the pressure being reduced from 200 to 25-pound gauge. Hot gas-oil is sprayed into the top of the asphalt stripper to flux the asphalt and prevent foaming. The vapors go overhead to the stripping jet condenser and from there to the compressor where they are compressed, put through the propane condenser and back to storage. The asphalt-gas oil mixture passes out the bottom and is pumped to storage.

The propane solution of deasphalted oil leaves the asphalt settler through a back-pressure regulator which holds a pressure on the asphalt settler higher than the vapor pressure of the solution at the settling temperature. The stream is mixed with sludge from No. 2 sludge settler in an orifice mixer, and passes into No. 1 sludge settler where the spent sludge settles out. This settler is a vertical drum 6 feet in diameter with a separate upper compartment designed as a flash drum. A sludge level is maintained by means of a liquid-level controller, the sludge passing out continuously at the bottom. The sludge is mixed with a stream of gas oil and as it enters the sludge stripper is mixed with a jet of live steam which decomposes the sludge and vaporizes the propane. Additional stripping steam is introduced into the sludge stripper through a perforated coil placed below the liquid level. The steam and propane vapor go overhead to the neutralizing jet condenser where the steam is condensed and vapor freed of any SO_2 by contact with water and caustic; the propane vapor is then picked up by the compressor, condensed, and run back to storage. The decomposed sludge goes to the sludge rundown tank from which it is periodically pumped to the acid works sludge separators.

The partially treated oil-propane solution leaves the first sludge settler and is further treated with fresh acid in an orifice mixer, the mixture enter-

TABLE 2—DEASPHALTING 546 VISCOSITY AT 210° F. SAYBOLT MID-CONTINENT RESIDUUM IN NATURAL GAS PROPANE

Residuum gravity 17.4° A.P.I.

Run number	80	82	81	76	79	77	78
Volume propane/volume residuum	3 0	4 2	10 1	4 2	11 5	3 0	11 5
Deasphalting temperature, °F.	102	99	100	120	119	137	136
Deasphalted and depropanized upper layer:							
Viscosity at 210° F. Say.	280	233	201	203	185	187	165
Gravity, °A.P.I.	19 8	21	21 4	21 7	21 9	21 9	22 6
Color in 85 per cent water white	1/4R	1/2R	1 3/8R	5/8R	1 1/8R	5/8R	1 3/4R
Viscosity gravity constant	.850	.846	.842	.840	.840	.840	.836
Volume per cent yield	82 7	78	75	68	73 5	49	65

TABLE 3—DEASPHALTING 86 MELTING POINT MID-CONTINENT RESIDUUM IN PLANT PROPANE

Run number	M6	M1	M5	M4	M3	M2
Propane to residuum ratio—by volume	1 9:1	11 3	1 9:1	4 4:1	11 3:1	11 3:1
Deasphalting temperature, °F.	74	72	126	126	126	155
Deasphalt. oil—viscosity at 210° F. Saybolt	....	....	534	420	452	....
Asphalt—M.P., °F.	....	168	91	125	163	125
Deasphalt. oil—per cent yield by volume (approx.)	1 6	54	14	35 5	51	33 6

TABLE 4—ACID TREATING IN PLANT PROPANE

Exp. No.	Ratio Plant propane / Oil	Lbs. acid per gal. of resid.	Treating temp. °F.	Length of sludge settle	Sour oil treating yield vol. %	Contact clay lbs./gal. treated oil	True color of viscous oil after claying	Filter yield to No. 1 bright stock (gal./ton)
1	2	0.75	80-90	1	86	0.6	1550	....
						1.1	930	....
2	2	1 25	80-90	16	90	0.7	2230	....
						1.3	1450	....
3	2	1 50	80-90	1	84	1.0	780	270
4	2	3.00	80-90	1	89	0.7	4620	....
						1.3	2690	....
5	4	1.00	75	1	83	1.1	830	300

TABLE 5—TYPICAL RESULTS OF ACID TREATING

Treat No.	Viscosity of resid.	Viscos. of de-asphalted resid.	Amt. (Lbs./gal. de-asphalted oil)	Acidity (% H_2SO_4)	Sour oil treating yield (vol. %)
6	300	228	1 1/2	93	69.4
7	300	228	3/4	93	72.8
38,A,1	352	224	3/4	93	75.8
38,A,2	352	224	3/4	93	77.9
45	352	220	3/4	93	76.6
36	352	224	1/2	93	80.4
44	352	220	1/2	93	82
49	352	220	1/2	98	81.5
39	546	235	1/2	93	80.9
40	546	202	1/2	93	84.3
43	546	202	1/4	93	86.4

Reduce Sweetening Costs

Among the present Perco COPPER SWEETENING installations there are no doubt one or more where the conditions and problems are very similar to those confronting you. Let us show you how much money COPPER SWEETENING has saved as compared with the old fashioned sweetening processes formerly used at these installations.

We will be glad to test and treat samples of your gasoline, and such research will enable us to estimate very closely the savings COPPER SWEETENING can accomplish for you.

For complete details concerning Perco's

COPPER SWEETENING

WRITE

The L. S. Gregory Company

EXCLUSIVE AGENTS

619 South Main, Tulsa, Oklahoma, U. S. A.

PETROLEUM ENGINEERING RESEARCH COMPANY

BARTLESVILLE, OKLAHOMA

ing the second sludge settler (similar to the first but 8 feet in diameter) where the sludge settles out and is picked up by a pump and used for treating in the first stage as has already been described. No sludge level is maintained in the second sludge settler the pump being run a little faster than necessary to remove the sludge as it is formed.

The treated oil-propane solution leaving No. 2 sludge settler is neutralized in an orifice mixer with a stream of dilute caustic and the combined streams enter the caustic settler (similar to the asphalt settler but 6 feet in diameter) where the caustic solution settles out and is drawn off continuously by means of a liquid-level controller to the neutralizing jet condenser where it neutralizes the vapors from the sludge stripper.

The neutralized oil-propane leaving the caustic settler is split into two streams. Approximately two-thirds goes through an exhaust steam preheater and a live steam secondary heater in series, and then to the oil flash tower below the bubble trays. The other third of the stream goes directly to the flash tower above the trays and obtains the heat necessary to remove its propane by exchange with the vapor from below the trays. The vapors pass directly to the propane condenser, and then back to storage. An oil level is maintained by a liquid-level controller. The oil from the flash tower flashed down to 25 pounds gauge enters the oil stripper where it is stripped with steam, the steam and propane vapor going to the stripping jet condenser from which the propane vapor is then picked up by the compressor. The oil out of the stripper flashes to atmospheric pressure in the dehydrator and is stripped with a stream of air to remove any contained water. A pump transfers the finished oil to a cooler and then to storage.

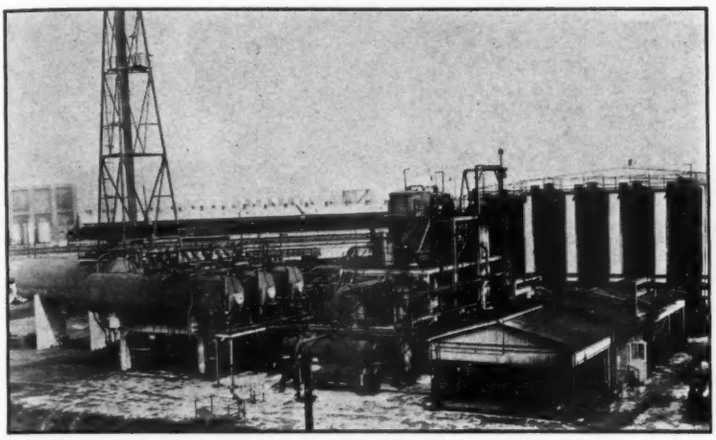


Fig. 6—General view of the plant with the lower part of the 250-foot steel stack shown in the left background

A line from the exit of the asphalt settler to the oil heaters and flash tower permits the bypassing of the acid treating equipment when the plant is operating to produce deasphalted oil only.

Corrosion — Corrosion strips of steel and of various metals were placed in more than a dozen locations throughout the unit. As was to be expected, corrosion of steel is very severe at the point where the steam and sludge come in contact, and in the sludge stripper, sludge rundown tank, and the line between them. Various brasses, aluminum bronze, and various copper-nickel alloys have been found to be satisfactory for this service; because of their mechanical properties especially in case of fire, the copper-nickel alloys have been preferred. The tee at the entrance to the sludge stripper is now of monel metal, as are the cocks and valves in the rundown line and the float in the sludge stripper. That part of the rundown line which is under pressure is of lead-lined steel; the rest is brass.

At other points in the system the corrosion of steel has been found by a year's observation to be less than 0.005 inches per year, except in the vapor line from the sludge stripper and in the water line from the neutralizing jet condenser, where it is 0.02 to 0.03 inches. A corrosion allowance will take care of these points over a long period.

The lead lining in the sludge stripper originally installed was not bonded to the steel, but attached by straps in the customary way. While corrosion of the lining itself was negligible, it was found to be very difficult to keep tight mechanically, and the original stripper has been replaced by one in which the lead lining is bonded to the steel shell.

Vent Stack — All safety-valves in the plant are connected to a common manifold, which ends in a 10-foot diameter horizontal drum for collecting any liquid carried from the safety valves. From the top of the drum there rises a 250-foot steel stack. At the top of the stack three small pilot flames are constantly burning. To eliminate the possibility of an explosive mixture in the vent system, steam is bled in constantly and escapes at the top of the stack. The sewers are trapped and vent into the same system.

This system has worked quite well; one advantage is that warning of any considerable loss of propane is at once given by the flame at the stack. The system does, however, make it somewhat difficult to locate the source of any leakage.

Operating Conditions — For nearly a year the unit has been producing all the Whiting plant's demands for bright stocks and cylinder stocks. Typical operating conditions are given in Table 6.

Utilities—Some idea of the saving effected by the new process may be obtained from Table 7, based on 100 gallons of unpercolated wax-bearing, green-cast stock.

TABLE 6—PLANT DATA DEASPHALTING AND ACID TREATING

Charging 55,000 gallons of residuum per day.	
Residuum charged, viscosity at 210 Saybolt	400
Propane to residuum ratio, volume	3:1
Asphalt settler, pressure lb. gauge	390
Asphalt settler, temp., °F.	110
Sludge settler No. 1, pressure lb. gauge	220
Sludge settler No. 1, temp., °F.	107
Sludge settler No. 2, pressure lb. gauge	212
Sludge settler No. 2, temp., °F.	104
Caustic settler, pressure, lb. gauge	200
Caustic settler, temp., °F.	100
Oil preheater exit temp., °F.	260
Second oil heater exit temp., °F.	296
Oil flash tower exit vapor temp., °F.	120
Oil flash tower exit oil temp., °F.	285
Oil flash tower exit, pressure, lbs. gauge	200
Oil stripper exit oil temp., °F.	270
Oil stripper pressure, lbs. gauge	25
Asphalt preheater exit temp., °F.	315
Asphalt flash tower exit temp., °F.	300
Asphalt flash tower pressure, lbs. gauge	200
Flux oil to asphalt stripper temp., °F.	200
Asphalt stripper exit temp., °F.	240
Asphalt stripper pressure lbs. gauge	25
Sludge stripper exit temp., °F.	235
Sludge stripper pressure lbs. gauge	25
Finished oil, viscosity at 210 Saybolt	179
Finished oil, color single dilution, N.P.A.	5½
Finished oil, yield volume per cent	72 2
Asphalt without flux, M.P., °F.	149
Asphalt without flux, yield volume per cent	13 7
Ratio of flux to asphalt by volume	1:1
Sludge without flux, yield volume per cent (by difference)	14 1
Ratio of flux to sludge by volume	0.8:1

TABLE 8—OIL CHARACTERISTICS

	Grav. (°A.P.I.)	Visc. (S.U. at 210°F.)	Flash (°F.)	Fire (°F.)	Pour (°F.)	Carbon residue	Ash	Neut. No. (Mg. KOH /gr.)	Cast	True color
Residuum charged	18	400	555	630	65	7.5	.09	.78	Black	17,000
Green cast filter stk.	32 5	177	535	610	90	2.2	.09	.25	Green	540

TABLE 7—UTILITIES AND CHEMICALS

	Old procedure	Present procedure
Fuel oil (gal.)	20	None
Steam (live)	2,845 lb.	1,040 lb.
Steam (exhaust)	395 lb.	produce 365 lb.
Electric power	12 KWH	0
Acid	420 lb.	40 lb.
Caustic	1.5 lb.	4.2 lb.

Products—The characteristics of the residuum charged into the plant and the green-cast, wax-bearing filter stock produced are shown in Table 8.

On dewaxing and percolation a yield of 440 gallons of 7-8 N.P.A. color, green-cast bright stock is obtained per ton of average grade Attapulgus clay.

The various products produced from stock treated in the new plant are in many cases indistinguishable from those produced by the old process; in certain specifications the new products are somewhat better.

By-products and losses per 100 gallons of filter stock are shown in Table 9.

TABLE 9—BY-PRODUCTS

	Old procedure	Present procedure
Acid sludge (gal.)	111	21
Asphalt (gal.)	0	20
Slop oil (gal.)	1	0
Loss (gal.)	7.5	0

Conclusion

The production of bright stocks and cylinder stocks by deasphalting and acid treating in propane solution has been carried out entirely successfully on a large commercial scale. The process constitutes a major advance over old procedures for producing this type of material.

Facilities for the Distribution of Tractor Fuels Increasing

The middlewest farmer may soon be able to obtain special fuel for his tractor almost as easily as he gets gasoline for his automobile today.

Speaking at the thirty-first annual meeting of the American Society of Agricultural Engineers at the University of Illinois, M. D. Gjerde, Standard Oil Co. (Indiana) engineer, recently revealed that the pioneer work in that direction has already been done in this one part of the country, though it is not so far along in some other sections. The subject of his address was "The Tractor Fuel Problem from the Refiner's Viewpoint."

"There has been a definite effort on the part of major oil companies to cooperate with the builders of automotive equipment, providing improved fuels and lubricants, to allow and encourage advance in design," Mr. Gjerde said. "Those in the industry concerned with the manufacture and sale of tractors undoubtedly appreciate the efforts of these oil companies, which pioneered in providing thorough distribution of petroleum products in the rural territories.

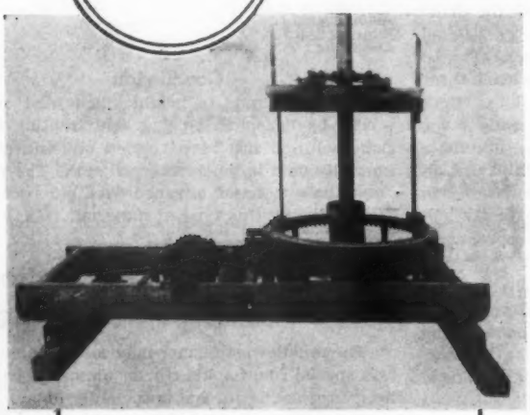
"To provide such distribution of fuels it has been necessary to install storage facilities at locations governed by concentration of consumption, and frequently only a few miles apart. The large investment involved is apparent when it is realized that an average tankcar storage installation represents an investment of approximately $800."

He also predicted increased popularity of the new one grade of special tractor fuel, the assured use of which will enable tractor manufacturers to make long-time plans more definite for improvement of their engines.

GUMBO BUSTER

(JOHNSTON)

THE FIRST



Here is the first Rotary Machine. Built in 1883 for water well drilling, it was later used at Corsicana, where the first commercial oil field in Texas was discovered. The American Well & Prospecting Company used this crude Rotary, improved it and pioneered its use in the oil fields. Being the first manufacturer of Rotary Drilling Machinery, they have continually improved their products—the now famous GUMBO BUSTER line of rotary machinery—until today they are the oldest and one of the largest exclusive manufacturers of Rotary Machinery in the world..... The Oil Bath Roller Bearing GUMBO BUSTER Rotary is the result of almost a half-century of progress in the development and improvement of Rotary Machinery.

....THE LATEST

Made entirely of steel, equipped with roller bearings throughout, oil bath, fully enclosed, this latest type 26-inch GUMBO BUSTER Rotary is guaranteed, when kept properly oiled, to operate indefinitely and to drill an unlimited amount of footage in any territory.

(This Rotary has made as much as two-hundred thousand feet of hole in hard digging without repairs.)

Manufactured by

The AMERICAN WELL AND PROSPECTING COMPANY

Corsicana, Texas

Distributed From Convenient Stocks By

BRIDGEPORT

The BRIDGEPORT MACHINE COMPANY

Manufacturers and Distributors of

OIL-FIELD EQUIPMENT

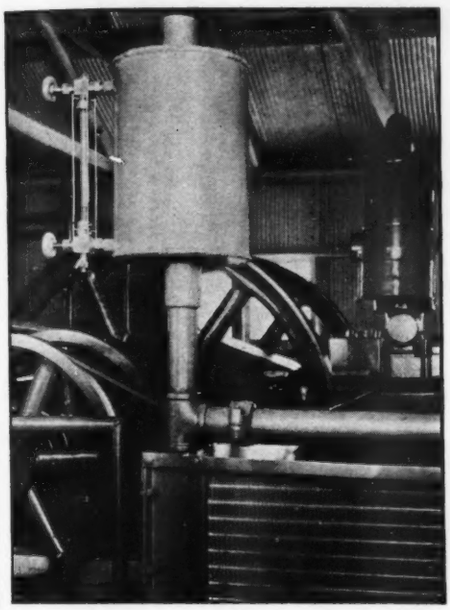
Factory and General Offices

WICHITA, KANSAS

OPERATING IDEAS

Water Level Indicator

Many oil companies are now replacing the old wooden water tank with 25- to 30-gallon radiators for cooling their two- and four-cycle



gas engines. To provide a reservoir for overflow water and a means of insuring that sufficient cooling water is in the radiator, one company has installed the equipment shown here. A section of 10-inch pipe is used to form the reservoir, a head being welded in the section and a 2-inch pipe used to connect the reservoir to the top of the radiator. A gauge glass is mounted in the side of the bowl to indicate the water level in the cooling system, and an opening left in the top of the bowl to give an outlet for the system.

Lube Barrel Holders for Drilling Wells

Practically every contractor and oil company operating drilling tools have their own design for racks to hold lubricating oil drums. Here is shown a portable rack holding three drums that is in use by a major company operating in the Rodessa field of Louisiana. A screw clamp is used to hold the barrels in position, thus making it easy to install and remove the barrels. The clamps do not deface the drums, and since the barrels are suspended oil is easily poured.

Walking-beam Operates Pump

To boost oil from the well to the tank battery, one operator in the Cotton Valley field of Louisiana devised a crude-oil pump to operate off the crank end of the walking-beam

of a shallow pumper. Oil is run from the well through a short 2-inch lead line to the pump shown at the left of the A-frame samson post. Here it is boosted to the tank battery which is situated so that the advantage of gravity is not afforded this particular well.

Special Designed House for Butane-Electric Rig

On rigs using butane as fuel for its engines in the summer months it is important to control the drafts in the auxiliary room to avoid over-heating the engines driving the generators. The construction of a specially designed house for this purpose is shown here. With this steel building the sections on hinges can be adjusted to meet the varying conditions of wind and weather. This house is used by one of the largest drilling contractors operating in the Mid-Continent.

24LTA-112CH CONTINENTAL-FALK GEARED PUMPING UNIT

It's good engineering to select the pumping unit to fit the prime mover equally well.

Extra capacity is necessary for slow speed engines with their inherent roughness; hence, engineering dictates a 6.2:1 ratio Falk Gear Unit for this service and a 9.4:1 ratio unit for multi-cylinder engines . . . an exclusive Continental feature.

Other exclusive features include the ESA Slonneger Type (Short Radius) Counterbalance which permits variation in the stroke length as small as four inches and maintains perfect counterbalance at any stroke length. Short radius counterbalance is inbuilt . . . not accidental.

A wide base without outriggers, heavy structurals, four-legged Samson Post, cast steel equalizer and large, oil-bath, sealed bearings—all with safe overload capacities beyond the rating of 24,000 pounds polish rod load—bespeaks good engineering.

The recommendations of Continental engineers are sound and no obligation is incurred by consultation.

THE CONTINENTAL SUPPLY COMPANY

General Offices: DALLAS, TEXAS

Export Offices CONTINENTAL EMSCO CO., Inc.

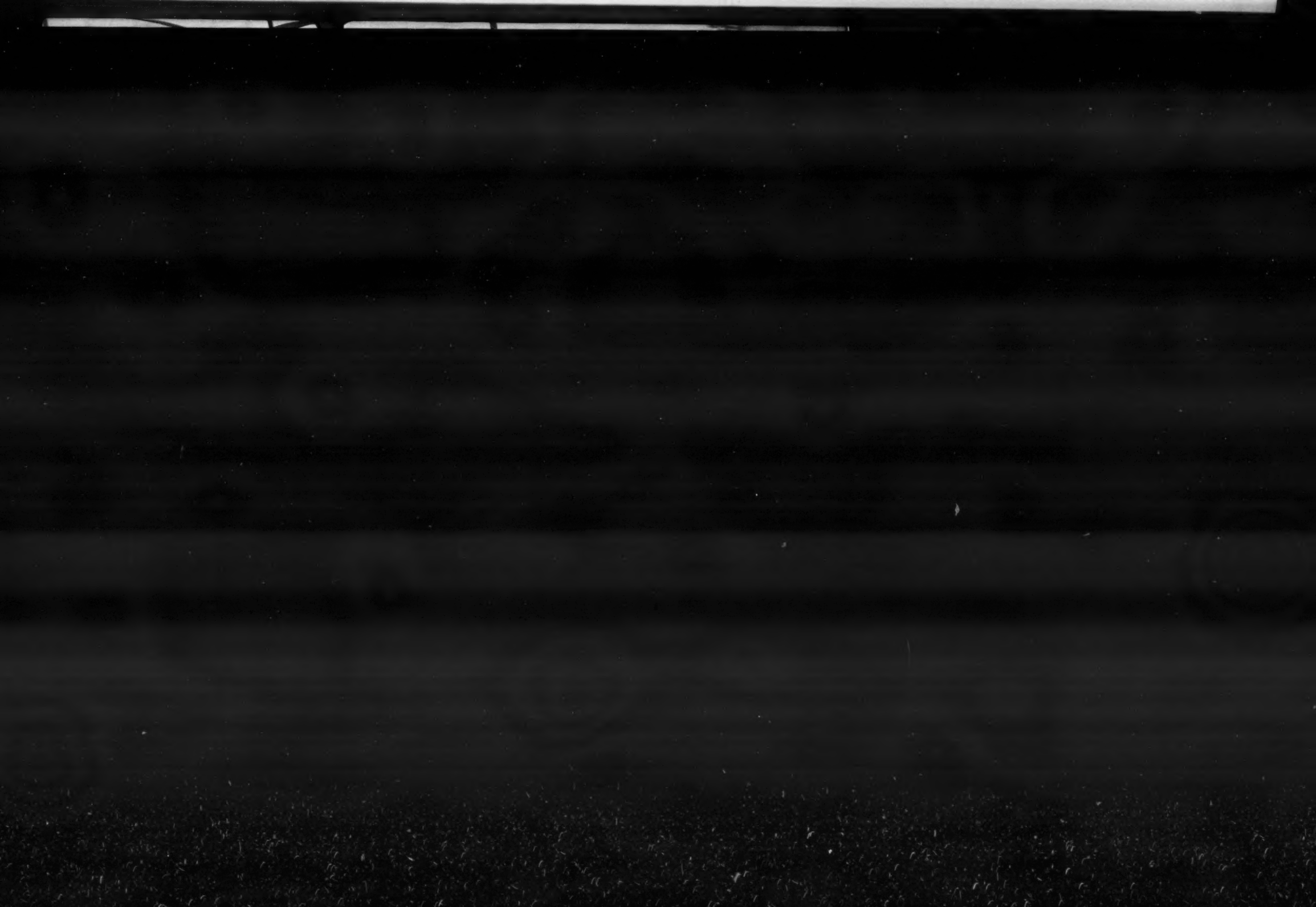
30 Rockefeller Plaza New York City, N. Y.

Representatives:

PLOESTI MARACAIBO LONDON BUENOS AIRES

"Serving the Oil and Gas Industries"

CONTINENTAL



Methods for Storing Drill Cutting Samples

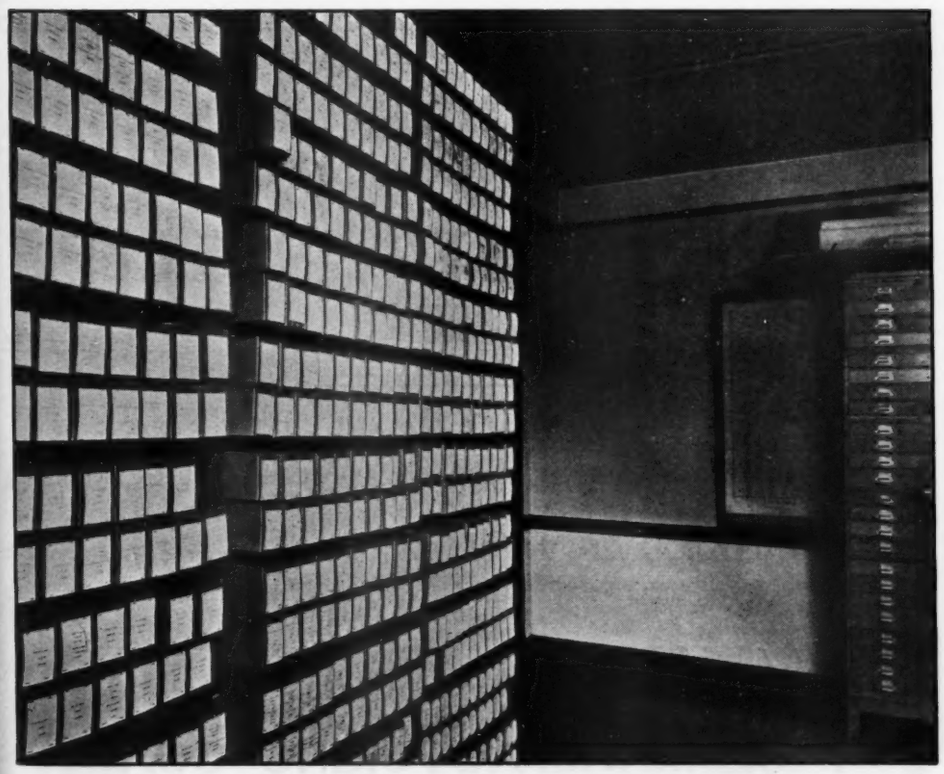
By PAUL REED

Not a shoe store but drill cutting sample storage of the Texas Co. at the Tulsa warehouse containing more than 700,000 samples

The final result of the whole procedure of catching and examining rotary drill cutting samples is the intelligent direction of drilling programs. But the only visible evidence of this search for data consists of logs on file in the office and samples in storage at warehouses where tons of them are kept for future reference. When these samples are seen tier on tier neatly boxed and labeled they look like files sent down from the accounting department. In some warehouses the sample boxes look like the boxes in a shoe store. It is hard to realize that they are the end product of a process which began at rotary wells where these small particles of rock were separated from the drilling mud and then later washed and dried and cut in preparation for examination under the microscope. These rows of orderly boxes may suggest library, file, museum or mausoleum, but they are really collections in which there may be clues leading to discovery of new sources of oil production.

It is estimated that samples stored in garages and warehouses in the vicinity of Tulsa represent a footage drilled which is greater than the distance around the earth. In a number of cases the problem of providing sufficient space has become pressing. And at certain intervals companies are faced with the necessity of appraising the value of their stock of samples to determine which ones should be kept and which should be disposed of by donation to other companies or to universities and technical schools. Sometimes it is hard to tell when samples become worthless. This is illustrated by the experience of an oil company which cleaned house in a sample room where samples had been accumulating for 15 years. Some samples regarded as of no further value were offered to any company which would take them away. In a truckload of these picked up by one major company it happened that there were samples from wells between Braman and Billings. Shortly afterward came the Billings revival. And the donating company was among the first to ask for a chance to examine them. Sample storage is not a static affair. There is a certain amount of weeding out to be done. With the inter-company borrowing of samples and the calls for old samples wanted for examination in the company office there is a regular flow of samples from storage to office in addition to the flow from office to storage.

In this, the concluding article of a series on rotary drill cutting samples, the author discusses various methods used by Mid-Continent oil companies in storing the samples. Other articles of the series appeared in the May 6, June 10 and 17, and July 15 issues.



Storage arrangement recently adopted by Pure Oil Co. Each box is numbered; label shows well name, location, and footage of samples

Drill cutting samples must be moved from company offices to storage at regular intervals of once a week or once a month. Office space is usually limited and building managers have a way of complaining of sagging floors when samples accumulate. Samples going to storage are those which have been examined under the microscope and those which are sent directly to storage to be available for examination at a later time when there may be a special interest in areas from which they came.

A variety of sample containers such as glass bottles, pill boxes, and paper candy sacks were to be seen in oil company offices between 15 and 20 years ago. With the development of the extensive sampling of all significant formations penetrated in drilling, the volume of samples became so large that it was necessary to standardize on a convenient container. Most companies adopted the 3-inch by 5-inch manilla paper envelope. A paper company serving this market reports that it has been selling 4,000,000 of these envelopes a year for the past two years.

In the early days of systematic sampling, sample envelopes were kept in wooden trays which have since been discontinued by most companies except in certain cases where they have been retained for temporary office storage. Trays have

Photograph by Robert Yarnall Richie

No. 19 of a Series on
Mission Shop Practices

Photograph shows assembling Mission Slips.

Since parts of Mission Slips guage within very exacting limits, assembly is easy whether in factory or on lease.

Inserting the *Rolling Dogs* in MISSION ROTARY SLIPS

The separate dogs shown in the picture above, roll away from the pipe as it is pulled . . . assuring . . . .

INSTANT RELEASE

thus eliminating the greatest cause of delay in handling pipe.

QUICK INSTALLATION ON THE DERRICK FLOOR of new dogs and other worn parts puts old slips on a par with new slips in efficient, economical performance.

MISSION MANUFACTURING CO.

HUMBLE ROAD • • • • • • HOUSTON, TEXAS

Mission Slips . Mission Valves . Mission Pistons . Mission Piston Rods Mission Swabs

Sold Through Supply Stores Everywhere

Shelves conform to cataloguing system in the storage space of the Shell Petroleum Co.

been superseded by cardboard boxes of a knock-down type; different sizes have been adopted by different companies. Large boxes capable of holding all the samples from a 6,000-foot well cost about the same as the smaller boxes, but are heavy to handle and, furthermore, many of these boxes contain samples from two or more wells. Box sizes run from this large box holding more than 600 samples to a long narrow box holding one row of 120 samples. A row of large boxes needs a separate shelf. In storing the smaller boxes it has been found possible to store two to four rows on a shelf but the tendency is toward having no more than two rows of boxes on a shelf in order to facilitate handling when samples are to be removed. The University of Tulsa, which has a collection of samples comparable in size to some of those held by major companies in the vicinity, has adopted a box 5½ by 3½ by 18 inches. A 4 by 6 by 20-inch box has been popular with a number of companies.

Large boxes labeled with a number at the Carter Oil Co.'s Tulsa warehouse. This type is used by a number of major companies

Shelves are sometimes built to conform to a system of indexing. The Shell Petroleum Corp. has shelves built with sections large enough to hold 10 boxes. These boxes are marked with arabic numerals from 1 to 10; upright supports between sections are marked with roman numerals; shelves are marked with letters. A label on the outside of the box carries names and locations of the wells and footage represented by the samples. The University of Tulsa has a similar system except that the shelf is marked with arabic numerals. The Sinclair Prairie Oil Co. uses a modification of the system. With this system, just described, the location of the box on the warehouse shelves can be shown on a card in a file. The majority of companies, including the Texas, Carter, Amerada and Pure, use a system by which the boxes are numbered and stored in order on the shelves. Most companies keep a card index at the office. The Carter Oil Co. has the number of the box, containing the samples, written on the sample sheet and log. The Texas Co. uses a cross indexing system. This is a separate file with a card for each box on which is noted its contents.

With the trend toward decentralizing operations, more samples are being stored at district offices and a number of the major companies find that the samples stored near central offices are only a fraction of what is stored in the field. However, in the course of time it may be found that some of the largest collections will be those belonging to universities near central offices. The practice of donating samples to these institutions is growing. And there has even been some discussion of the advisability of having all warehouse storage of central offices concentrated and pooled at those points where a university with a petroleum engineering department may be ready to undertake the functions of sample librarian. Prof. A. N. Murray of the University of Tulsa has pointed out that while samples are given to his department as donations, they are received as loans, since it is desired that the donating company feel free to withdraw the samples at any time. The purpose of maintaining a sample collection at the university is to benefit the oil companies, the school and the cause of scientific research. Samples may be examined by persons visiting the university and they may be loaned to responsible companies for certain periods. It is expected that the scientific value of these collections will increase as they grow in future years.

Wooden trays commonly used 10 years ago have been displaced by cardboard boxes except in certain instances when cutting samples are temporarily filed

PROBLEMS FROM READERS

Edited by L. G. E. Bignell

How Many Gallons of Water to a Cubic Yard?

We have had a discussion about how many gallons of water there are in a cubic yard. Will you please give me the answer?—R. C. McW.

One cubic yard contains 27 cubic feet or 46,656 cubic inches. One gallon equals 231 cubic inches so by dividing 231 into 46,656 cubic inches it will be found there are 20.19735 gallons in one cubic yard. Another way to solve this problem is to multiply 27 cubic feet, or the number of feet in a cubic yard, by 7.4805 gallons per cubic foot.

Ratio of Wildcats That Produce

I have been compiling some data relative to the number of wildcat wells drilled that produce and the best figure I can arrive at is about 1 out of 126, but these figures do not seem to be correct. Will you please tell me what it is?—T. S. H.

Have your letter about wildcat wells that produce and the best I can do is to refer you to an article by Wallace E. Pratt, published in the March 25, 1937, issue of The Oil and Gas Journal in which he compiles data about major oil fields discovered by various methods over successive five-year periods.

This does not exactly answer your question, however, and I refer you to a by-line article of mine published in January 17, 1935, issue of The Oil and Gas Journal entitled "Recent Wildcat Tests Confined Largely to Trends in Few States."

In this article there is a table quoted below:

State—	Wildcats	Producers
Montana	8	1
Wyoming	33	2
Colorado	26	0
Utah	5	0
Kansas	112	22
Oklahoma	150	31
West Texas	67	6
Southwest Texas	370	19
Texas Gulf Coast	122	8
East Texas	157	7
New Mexico	15	6
Louisiana	120	5
Arkansas	34	1
Mississippi	16	0
Total	1,235	*108

*8.75 per cent.

While these figures cover wildcatting in 1934 it is believed they are more or less representative of present trends. One thing of interest in this connection is the fact that of the 1,235 wildcats 160 were drilled by major companies and 1,175 by independents.

Out of the 160 wildcats completed by the major companies 43 resulted in the discovery of oil. This is 27 per cent successful operations. Of the other 1,175 operations a total of 61 struck oil or only .052 per cent of the holes drilled were successful.

It is hoped this information will be of interest and assistance to you and if I can supply anything further please advise.

In Arnold and Kemnitzer's "Petroleum in the United States," published in 1929 there is a table showing summary of wildcat wells drilled in the United States, 1859-1928, by major areas and covering a total of 50,398 wells drilled of which 2,088 found oil in commercial quantity, 372 were gas wells and 47,938 holes were dry or a 95.1 per cent failures. The average wildcat has had about one chance in 24 of opening up a new oil field. Wildcatting was least hazardous in the Rocky Mountain region where 89.3 per cent of the wells were dry, and most hazardous in the Gulf Coast area where 98.2 per cent were dry. In areas outside of regular major fields 98.9 per cent of all wildcats were dry according to the figures prepared by Mr. Kemnitzer at the time he compiled his book.

From these data it seems rather difficult to arrive at any final conclusion but they are submitted for your consideration as about the best information available on this rather interesting subject. You might find something of interest in this general subject in the paper prepared by John T. Hayward, Barnsdall Oil Co., Tulsa, and presented before the A.P.I. annual meeting held in Dallas, Tex., November 15, 1934. This paper was entitled "Probabilities and Wildcats" and was published in The Oil and Gas Journal of November 15, 1934, page 129 under the head "Probabilities and Wildcats Tested Through Mathematical Manipulation."

What is a "Stray Sand"?

I note that it has been reported that oil was found in a "stray" sand in Converse County, Wyoming. Do these "stray sands" have structure to indicate their presence or are they found by accident? Can you name some oil fields that are producing from stray sands, and inform me if there is any structure there?—H. G. K.

The term "stray sand" has been used in many fields when gas or oil was found unexpectedly in some formation not easily identified by the driller. In the early days of the industry nearly every discovery was from some "stray sand" because the production was found at some depth different from which most of the wells in the area produced.

As geology was used more and more in the industry producing formations were correlated and every producing sand had a name and this same name was used for the producing formation in all fields. However, even at this time wells are completed in formations that are not easily correlated and during the early history of the well it may be reported as producing from a "stray sand" and later this formation may be identified and given the common geologic name.

Structure should be properly defined as the inclination of the bed and does not necessarily mean the producing formation is on an anticline or some other structural feature. Many oil fields secure their oil from formations which are inclined and the gas and oil has accumulated in the upper portion of the reservoir rock and has been trapped there by change in the character of the formation up-dip. These forms of producing formations have been called "stratigraphic traps" to differentiate them from structural traps or reservoirs.

In Michigan there are some fields which were reported as producing from a "stray sand" but later the producing formation has been correlated with other similar producing formations and then has been given the common name. In other instances producers have been drilled to some new formation and it has been given a local name, such as the lease or farm name, and has carried that name throughout the life of the field even though it has later been determined the production was coming from some common reservoir rock.

Oil Beneath a Water-Bearing Formation

In southern Indiana and Illinois it is common to find "blue lick" mineral water, which has a very offensive odor. Some oil men claim oil is never found beneath a "blue lick" water sand. Are there any grounds for such a conclusion? Do you know of exceptions?—R. T. P.

It is difficult to give you any direct answer to your question about production formations in southern Indiana and Illinois because you fail to give us any information about the depth at which the so-called "blue lick" water is found.

It may be stated, however, that it is possible in the area to which you refer to have a sulfur water in the basin and below that formation to find no oil. This condition of lack of oil is not so much due to the presence of water as to the lack of structural conditions in which oil could be trapped.

There are many fields in which oil has been found beneath water sands but in general it is regarded as an indication of limits of production when water is encountered either as edge or bottom water. In the Cushing field, Oklahoma, water has been found in the Bartlesville sand which also produces oil and after shutting this water off the hole has been drilled deeper and oil found in the Wilcox sand. Again bottom water has been encountered in the different sections of the Wilcox sand and the hole has been deepened progressively by shutting off water in the upper portion of the sand and drilling deeper into the next lower oil sand.

The odor you refer to is probably due to the presence of hydrogen sulfide and this strong sulfur smell is noted with much of the oil of that region also.

Drilling Rathole for Kelly

With reference to the article "Efficient Practice Enables Humble to Cut Well Costs," by Neil Williams in the April 1, 1937 issue of The Oil and Gas Journal, we would like to receive more details with respect to the combined kelly joint protective casing and rathole. It does not appear clear to me how it is possible to drill the rathole with the kelly together with the casing-joint, when the rotary table lies on the derrick floor and the length of the casing joint be about 14 m. Please explain how this device is operated when drilling the rathole.—J. M.

The protective joint of casing is a permanent housing for the kelly and is left on the kelly when it is moved. This housing is connected to the kelly through a sub at the top of the kelly which screws into the top of the casing. When the rig is set up and the hole is being drilled the kelly sub is backed off to permit the kelly stem to be withdrawn from the protective casing housing.

To drill the rathole a bit is welded to the bottom of the joint of casing used to protect the kelly. To furnish power to rotate the protective joint of casing with the kelly inside of it a large sprocket is fitted over the outside of the casing. This sprocket is driven by a light chain from the regular rotary.

When the rathole is dug with this piece of apparatus the casing is left in the hole with bit attached to the bottom and the sub is disconnected leaving the kelly free to be run into or withdrawn from the rathole as desired.

KANEWELD

THE WELDING PROCESS THAT MEETS THE INDUSTRY'S DEMAND FOR GAS-TIGHT, STEEL-STRONG CASING JOINTS

DEVELOPMENT

The KANEWELD Process of welding casing joints is the result of many years of painstaking research and experiment to develop a casing joint having tensile strength equal to that of the casing itself, and yet provide a positive, leak-proof joint.

PROVEN

While the KANEWELD Process is comparatively new, it has been definitely proven to be both practical and economical, having been successfully used in setting more than a thousand strings of casing ranging in size from 5½" OD to the largest size conductor pipe. Length of the casing string is no obstacle.

ECONOMICAL

The KANEWELD Process is applicable to all sizes and weights of A.P.I. casing in grades "B" and "C," seamless and electric weld. While the cost and running time are comparable to that of threaded and coupled casing, a substantial saving in both has been effected on a majority of the KANEWELDED casing installations.

FIELD SERVICE

The KANEWELD Process is fully protected by patents, and KANEWELD service is available, day or night, in all Gulf Coast fields. Completely equipped electric arc welding trucks, manned by skilled and experienced welders, are stationed at strategic points throughout the territory . . . . ready for immediate service. A nominal royalty charge is made where the KANEWELD Process is not performed by a KANEWELD crew.

KANEWELD field service is also available to operators desiring welded casing joints other than the patented KANEWELD Process.

Full particulars concerning the KANEWELD Process and Field Service will be gladly given upon request.

KANE BOILER WORKS, INC.

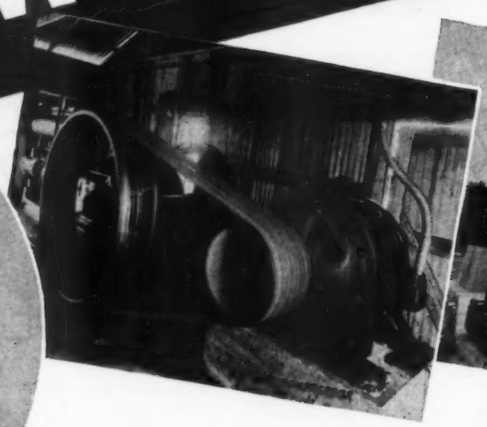
Plant: Galveston, Texas.

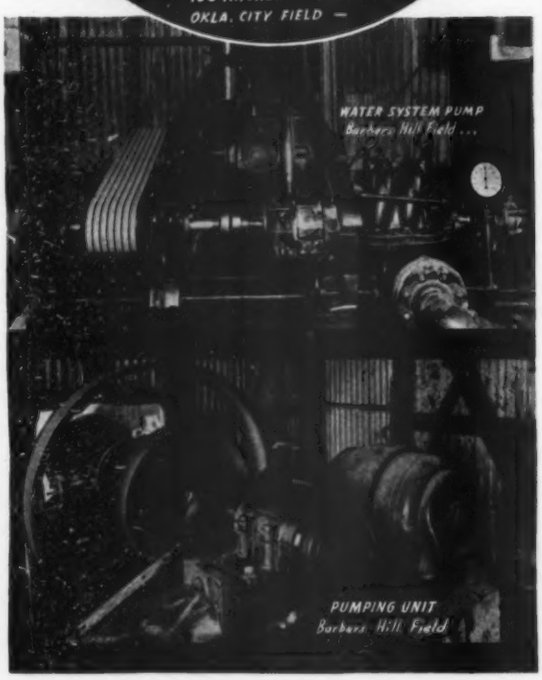
Sales Office: Electric Building Houston, Texas.

32 years experience in steel pipe manufacture.
21 years experience in electric arc welding.
9 years experience in welding casing joints.

THERE IS NO RECORD OF A LEAK IN ANY KANEWELDED CASING JOINT!

ELECTRIC POWER . . .





MEETS *Today's* DEMAND FOR LOW COST PRODUCTION . . .

Here's evidence of how PURCHASED ELECTRIC POWER is providing greater efficiency at a lower cost for operators everywhere. You, too, should enjoy these advantages which Purchased Electric Power affords. . . .

- Dependable service at all times.
- Costs less to operate and maintain.
- Extreme Portability.
- Greater Salvage Value.

PETROLEUM ELECTRIC POWER CLUB

QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

Analyses of Oil From Placedo Field Texas

We will appreciate the favor if you will furnish an analysis showing the contents of the oil from Placedo field, Texas?—E. L. D.

The Placedo field is located in Victoria County, Texas, in the South Gulf Coast area.

The data here have been arranged from the U. S. Bureau of Mines report. The samples are from the Smith sand and the 6,000-foot sand.

PLACEDO OIL

No. 1 Smith sand	4,773-4,778 feet
Gravity, A.P.I.	46.0
Color	Brownish green
Viscosity S.U. at 77° F. sec.	64
Viscosity S.U. at 100° F. sec.	50
Sulfur, per cent	0.14
Pourpoint, lower than, °F.	5
	Per cent
Gasoline and naphtha	2.4
Gravity, A.P.I.—46.0	
Kerosene	none
Gas oil	57.0
Gravity—31.3	
Non-vis. lube dist.	13.4
Gravity—24.2-21.3	
Viscosity—50-100	
Medm. lube dist.	3.7
Gravity—21.3-19.2	
Viscosity—100-200	
Viscous lube dist.	10.4
Gravity—19.2-16.0	
Viscosity—Above 200	
Residue	12.1
Gravity—11.4	
No. 2 6,000-foot sand	5,943-5,953 feet
Gravity, A.P.I.	35.4
Color	Brownish green
Viscosity S.U. at 77° F. sec.	38
Viscosity S.U. at 100° F. sec.	36
Sulfur, per cent	0.16
Pourpoint, lower than, °F.	5
	Per cent
Gasoline and naphtha	31.6
Gravity—53.2	
Kerosene	7.6
Gravity—40.6	
Gas oil	33.3
Gravity—33.3	
Non-vis. lube oil	9.7
Gravity—28.4-24.2	
Viscosity—50-100	
Medm. vis. lube oil	3.9
Gravity—24.2-21.5	
Viscosity—100-200	
Viscous lube dist.	5.9
Gravity—21.5-17.3	
Residue	6.7
Gravity—10.7	

The Bureau of Mines classifies the Smith sand oil as wax-free naphthene base and the 6,000-foot sand oil as wax-bearing intermediate-naphthene base. There is a wide difference in the gasoline content of the two oils.

Chemical Nature of Lube Fractions From Mid-Continent Oil

Is it known just what hydrocarbons are concentrated in the lubricating oil portion by the solvent extraction processes? Any information you have on this will be appreciated.—D. L. C.

The exact chemical composition of lubricating oils has not been determined. Doctor Rossini and associates of the National Bureau of Standards, making investigations under American Petroleum Institute research projects, have announced some progress from their studies of a series of lubricating fractions prepared from a Mid-Continent petroleum, from the South Ponca field, Oklahoma.

Mair and Willingham have recently reported on the chemical constitution of the lubricating oil fractions which have been extracted with sulfur dioxide, dewaxed with ethylene dichloride and filtered through silica gel. The following is quoted from their summary:

"The petroleum fractions had been extensively separated by distillation and extraction and their empirical formulas determined. The following properties were compared: Densities, specific refractions, optical activities, specific dispersions, viscosities, viscosity indices, aniline points and boiling points.

"It appears that the least soluble portion of the oil, that is, the material corresponding to the most highly refined product obtained by any good solvent extraction process, consists substantially of naphthenes (cycloparaffins) containing from one to about three rings to the molecule, together with the necessary alkyl radicals. The somewhat more soluble portion consists of naphthenes with more rings, together with some unsaturated hydrocarbons and possibly some aromatic hydrocarbons. There is no evidence whatever for the existence of iso or branched-chain paraffins.

"Because of the similar solubility relations, it is possible that in the extraction processes as used at the present time one-ring aromatic hydrocarbons are being discarded to waste along with the undesirable naphthenes containing about six rings to the molecule."

Reference: J. of Research, Nat'l. B. of Stands., 17, 923, 1936.

Naphthas Containing Aromatics Are Powerful Varnish Diluents

Is it known what is the reason some petroleum naphthas are better varnish and lacquer diluents than others of apparently the same general specifications? Do they contain something special like the antiknock quality of certain gasolines?—D. R. E.

Petroleums of a certain type produce gasoline having a higher octane number than others. One reason for this is that such oils contain a larger percentage of aromatics, which are strong knock inhibitors. The aromatics have also a greater solvent power and better compatibility for use with resins and nitro-cellulose solutions than are the volatile fractions obtained from ordinary petroleum.

The oils of Borneo are remarkable in that light fractions contain 40 per cent aromatics. The crude oils of Arkansas, Oklahoma, Texas and California also yield distillates containing appreciable quantities of aromatic hydrocarbons. The superiority of the naphthas produced from these oils for use in the varnish and lacquer industry as diluents is recognized.

Reference: Arthur Lazor, Ind. Eng. Chem., 28, 659, 1936.

Quality of Cannon Process Gasoline

Could you furnish a brief explanation of the Cannon Process for treating raw gasoline? How does the product from this process compare with one sweetened by the doctor solution as to color stability?—D. A. R.

The Cannon Process for the sweetening of light products, such as gasoline and naphtha, involves chemical treatment and filtration. The special chemical contains hydrated lime sodium hydroxide, litharge and a filtering earth, finely divided diatomaceous earth. Other details, patent references, etc., were given on this page in the issue of June 4, 1936.

Wirth III and Murphy have reported the results of their investigations of the color stability of gasoline treated by this process, as follows:

H. Cannon has proposed the use of a mixture of lead oxide, calcium hydroxide, and fullers earth for the sweetening of gasoline. The hydroxide is used in excess of the quantity required to give calcium plumbite. Elemental sulfur is required and is added in the form of a solution in gasoline. The lead sulfide formed in the reaction is reconverted by the lime present to plumbite. The sweetening may be conducted by agitation or filtration through a bed of the mixture. The bed is renewed when no more lime is present.

TREATED AND UNTREATED GASOLINE
CANNON PROCESS

Sample blend of cracked and straightrun gasolines—	None	Cannon reagent
Sweetening reagent		
Color, °Saybolt	28	28
Color stability*	20	18
Time required in arc to form haze, min.	10	7.5
Doctor	Pos.	Neg.
Corrosion	Pos.	Neg.
Peroxide number	0.04	0.06
Free sulfur	Pres.	Pres.
Total sulfur, per cent	0.04	0.04
Gum, copper dish, mg./100 cc.	8	10
Oxygen bomb stability, induction period, minutes:		
Without inhibitor	745	755
With 0.025 per cent inhibitor	1,220	1,090

*Equivalent to two hours noon June sunlight.

The properties of gasolines sweetened with this reagent are not unlike those of brucite and slaked lime. Only a limited amount of the natural inhibitors is removed. Due to the formation of disulfides, the color stability shows no improvement over a sodium plumbite treated gasoline.

Reference: Wirth III and Murphy, The Oil and Gas Journal, February 6, 1936, page 28.

CHEMICALS FOR THE PETROLEUM INDUSTRY

Nitrobenzene
(Oil Mirbane)

Use—Selective solvent for making lubricating oil. Odorant for grease, etc.

Formula—$C_6H_5NO_2$.

Odor—Bitter almonds.

Form—Light yellowish green liquid (water white when freshly distilled).

Specific gravity—1.208.

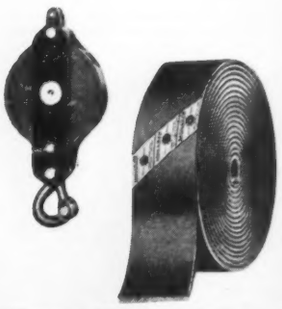
Melting point, °F.—48.

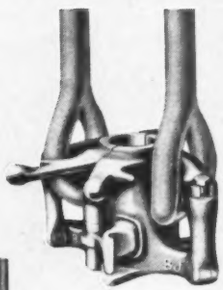
Boiling point, °F.—410.

LIMITATIONS

Boiling point, approx., °F.	412
Water, per cent, max.	0.1
Purity, min., per cent	99.9
Freezing point, min., °F.	41

Should distill 95 per cent within 2° F. of the stated boiling point.





A Complete Line

OF OIL INDUSTRY SUPPLIES

JARECKI gives the oil industry a supply service that is complete.

Through our thirty stores we distribute everything needed for oil field, pipe line, and refinery use. Among the primary lines distributed, in addition to our complete line of JARECKI Valves and Fittings, are Oil Country Tubular Goods, Line Pipe and Standard Black and Galvanized Pipe, Valves, Pipe Fittings, Oil Well Specialties, Pumping Units and Surface Pumping Equipment, Cordage, S. M. Jones Sucker Rods, Union Wire Lines, Hewitt Rubber Products, Jarecki Pipe-Threading Machines.

Oil operators find it convenient and economical to get all of their supplies from JARECKI. They know that every product we handle is of the highest quality and has thoroughly proven itself in the field.

JARECKI stores are located at all principal points in the oil country. We invite you to stop at our nearest store and get acquainted.

See JARECKI Section, 1937 Composite Catalog

Jarecki

MANUFACTURING COMPANY

"Since 1852"

General Offices: St. Louis, Mo. Home Office and Factory: Erie, Pa., U. S. A.
District Offices: Pittsburgh, Pa.; Tulsa and Bartlesville, Okla.;
Mt. Pleasant, Mich.; Eastland and Dallas, Texas
Branch Stores at All Important Places in the Oil Country

FIELD OPERATIONS

Summarizing the Week's Developments

Wildcats opening new pools or extending old ones were completed in Barber, Elk, Sumner and Rice counties, Kansas. On the other hand nine wildcats were dry and abandoned. Six wells were completed in the Trapp area, Russell County, and seven completions were recorded in the Bemis field, Ellis County. One hundred and three locations and new operations were reported.

OKLAHOMA

The pool opener drilled by the Stanolind and Amerada companies near Tecumseh in Pottawatomie County, Oklahoma, flowed 580 bbls. of oil in 10 hours from Dolomite. Deep wildcats in northwestern and southeastern sectors of Stephens County reported shows of oil and were expected to be producers. Two new deep tests have started in the Fox area, Carter County, and one in northeastern Oklahoma County. Several large producers were completed in the Fitts field.

TEX-LA-ARK AREA

Three oil wells were completed in the Lodi area, Marion County, Texas, extension of the three-state Rodessa field. The Schuler field in Union County, Arkansas, caused some financial headaches when six wells appeared to have missed the production formation, giving the field the appearance of a lenticular sand area. On the Louisiana Coast a number of wildcats are showing oil in coring tests.

TEXAS

The recent discovery near Avoca, Jones County, Texas, is rated as good for 10,000 bbls., flush open flow, but is being produced on a three-fourths inch choke. It will result in a lot of work thereabouts in Jones, Shackelford and Haskell counties. The second test in the Opelika area, Henderson County, is due this week and may decide the fate of that pool. The Hastings pool in Brazoria County was extended and likewise the Heiser field in Victoria County. The Friendship area in Harris County, recently opened by Humble Oil & Refining Co. with a well good for 640 bbls. a day on a quarter-inch choke, is regarded as one of the most important new pools in the Coastal area in years.

NEW MEXICO

East side of the Hobbs field, Lea County, was extended slightly by Shell Petroleum Corp., with a 2,788-bbl. well. Thirteen oil wells and one gas well were completed in Lea County, and one oil well in the Jackson area, Eddy County.

OHIO

Unusually good wells were completed in the old Ohio field including a 225-bbl., a 134-bbl., a 125-bbl. well in Perry, Coshocton and Muskingum counties, respectively.

ILLINOIS

Eighteen new locations were made in the Illinois Basin fields. Two dry holes were the only completions, one in St. Clair County and one in Fayette County.

MICHIGAN

The area between the north and south pools in the Buckeye field, Gladwin County, Michigan, was made to look bad by several dry holes in the past week. Big wells were completed in the field bringing the total oil wells to 171.

Completions in All Fields

(Week Ending July 17, 1937)

	Oil	Gas	Dry	Total	1937 total comp. to date	1936 total comp. to date
N. Y., Pa., W. Va.	71	16	6	93	2,149	1,620
Ohio	9	12	2	23	608	375
Indiana	0	0	0	0	49	91
Kentucky	5	0	1	6	292	123
Illinois	0	0	2	2	43	23
Michigan	20	0	7	27	467	383
Kansas	57	7	25	89	1,349	869
Oklahoma	43	2	21	66	1,567	1,403
Texas:						
North Central Texas	38	2	21	61	1,570	1,540
West Texas	56	1	10	67	1,445	774
Texas Panhandle	14	2	0	16	386	370
East Texas	55	0	3	58	1,194	1,510
East Central Texas	17	2	4	23	394	155
East Texas Border	5	0	0	5	223	37
Gulf Coast Texas	22	0	7	29	803	641
Southwest Texas	33	4	18	55	1,781	1,516
Total Texas	240	11	63	314	7,796	6,543
North Louisiana	7	1	5	13	370	370
Gulf Coast Louisiana	2	0	4	6	255	217
Total Louisiana	9	1	9	19	625	587
Arkansas	0	0	4	4	71	54
Montana	2	0	2	4	100	109
Wyoming	0	0	2	2	51	49
Colorado	0	0	0	0	6	16
New Mexico	14	1	0	15	417	302
Utah	0	0	0	0	1	5
California	31	0	7	38	827	612
Total United States	501	50	151	702	16,418	13,164
Total previous week	451	61	130	642		
Difference	50	11	21	60		

Outstanding Fields—Highlights

(Week Ending July 17, 1937)

Field—	Rigs up	Wells drlg.	Weekly oil completions	Initial prod.	Total No. oil wells	Daily av. prod.
TEXAS						
Amelia	6	11	4	2,567	76	5,436
Hastings	2	20	5	2,705	231	15,139
Flour Bluff	1	5	1	20	61	4,500
Saxet	7	30	7	870	490	40,350
McCampbell	4	11	2	175	30	2,270
North Sweden	1	10	4	815	17	1,000
East Texas	83	126	55	1,674	23,115	474,700
Talco	6	37	9	1,804	385	31,100
Ector County	24	95	12	7,536	498	22,000
Winkler County	14	54	10	11,961	1,322	45,500
OKLAHOMA						
Oklahoma City	1	6	0	0	1,130	144,775
Fitts	6	52	10	13,409	803	95,650
Olympic	2	5	1	120	386	13,750
KANSAS						
Ellis County	6	36	8	5,013	137	7,745
Reno County	3	26	4	1,102	453	18,970
Russell County	8	62	13	12,645	762	32,025
Rice County	8	61	5	993	911	46,490
NEW MEXICO						
Lea County	15	91	13	1,688	2,228	112,770
LOUISIANA-TEXAS						
Rodessa, La.	3	17	0		388	48,245
Rodessa, Tex.	4	20	4	1,259	310	37,430
Lisbon, La.	8	18	3	1,390	50	13,095
MICHIGAN						
Buckeye	16	89	16	9,000	171	15,122

Michigan Field Report

BUCKEYE'S MIDWAY AREA IS GIVEN SURPRISING SETBACK

By
O. C. PRESSPRICH

SAGINAW, Mich., July 19.—Even the continued development of the Buckeye oil field in Gladwin County is overshadowed this week by plans for a big natural gas development in Arenac County, designed to create tremendous gas reserves for the Consumers Power Co., which serves gas to Saginaw, Bay City and Midland, and in at least one of these cities, Saginaw, is endeavoring to negotiate a new franchise.

The Arenac gas development, based on repeated encounters with sizable gas flows from the Berea sand in oil wells drilled and drilling in Clayton Township of Arenac County, is planned by a group which controls 2,600 acres of promising gas area and which has negotiated a contract with Consumers Power Co. to take its gas output. The contract is conditioned on the building up by the pool of a gas reserve of 5,000,000,000 feet, a goal the group's organizers believe they can reach by October 1.

First of the wells are just being started by Fletcher & Leman. Permits for two wells were issued the past week by the state conservation department and perhaps a score of others are to be put down to hasten the effective date of the contract with the Consumers Power Co. The wells, it is announced, will be spotted in the center of 160-acre tracts, shunning the practice elsewhere in Michigan gas fields of drilling one well on each 40-acre portion of a lease. The first one of the wells will be four locations east of the Hal-Be-Oyle Bergeron farm well in section 15 of Clayton, rated at about 25,000,000 feet daily.

Gladwin County

Buckeye Township of Gladwin County, whose magic wells have developed a continued stream of prolific producers, set a new record in the past week—that of producing four dry holes, mostly edge wildcat tests in the area between the Wicklund and Oard pools—while the northern (Wicklund) pool came in with two producers in the west and northwest which materially extended boundaries of proved territory in that direction.

In addition to the four dry holes in Buckeye, two other failures were plugged in Billings Township, bordering Buckeye to the east, opposite the south (Oard) pool.

The surprise and disappointment of the week among the dry holes came when Beaver Trust No. 3-A Armstrong, north offset to Hanners Development Co. No. 1 Armstrong, "tattletale" well in section 23 was completed dry. The Hanners well, which opened the midway field and caused a flurry in that undeveloped territory, was a fair producer. Formations at the Beaver Trust's dry effort were deceptive, operators said, with expectations of the north offset well to run higher, while actually formations were 30 feet deeper.

To add to the complexity of the picture in territory surrounding the Hanners midway discovery well, an eastern offset, Smith Petroleum Co. No. 1 Chonch, also in section 23, came in a 100-bbl. producer. The Smith well is one location south and one east of Beaver Trust's dry effort. It may prove much or nothing, with the belief growing that formations may curve northeastward from the Hanners well. Hanners is also reported drilling an offset to his original well, being No. 2 Armstrong, SE NE SW section 23.

To the westward in the midway pool Archie M. Henry No. 1 Demuth, SE SW SW section 22, a west outpost of the midway development, also came in dry practically eliminating development in that sector.

Two fringe wildcats bordering on the north pool at the west and southwest extremities of the north (Wicklund) pool were dry, curbing operations along the borders. Durham & Jones No. 1 Gingerage, NW NW SE section 15, was completed dry, and was the farthest outpost in this direction, yet only 1½ miles from McClanahan's producer in section 10.

A venturesome western outpost of the north pool was also plugged and abandoned as a failure when Phillips Drilling Co. admitted defeat at No. 1 Woodward, NW NW NW section 9. No show of oil was reported at 3,524 feet.

While dry holes disappointed in defining some boundaries, northern Buckeye rejoiced over extension of proved territory. Mammoth Producing & Refining Co. No. 1 Wood, SE NE SE section 4, developed a production between 40 and 50 bbls. hourly. The Mammoth well opens up a large territory at the northwest edge of the north pool, and further adds to the theory of the northwesterly trend of pay formations.

The other favorable boundary marker of the north pool was D. F. Jones No. 1 Bonnigot, NE NW SW section 10. The well pushed pay territory of the north pool considerably west with a gauge of 40 bbls. daily.

An eastern extension of the north pool was H. H. Hart No. 1 Soldan, SW NE SE section 12, where bottom was reached at 3,260 feet with a flow of 150 bbls. daily.

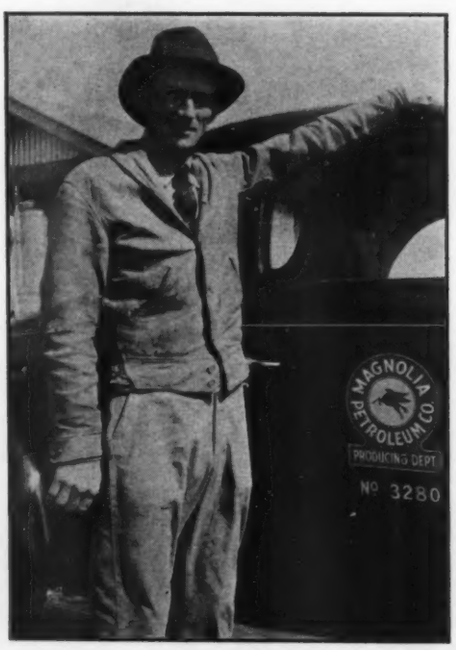
Sun Oil Co. topped the list with the biggest producer of the week with its No. 4 Raab, SE SW NE section 10, showing a flow of 140 bbls. hourly. After being pinched in the well stopped flowing, and was to be deepened 7 feet for another test.

Mammoth Producing & Refining Co. completed its No. 4 Jakab in section 10 for 1,000 bbls. daily production in proved territory.

South (Oard) Pool

Several southern pool wells were due for completion this week with others awaiting acid treatment.

Clark & Johnson No. 6 McMahon, SW NE SW section 36, was the only favorable producer reported this week. It rated 600 bbls. naturally. Several southern Buckeye wells were reported ready for pay sand this week-end.



D. A. Murphy, production foreman, Magnolia Petroleum Co., Perry, Okla.

Billings Township

Two dry holes were added by Billings Township this week. They were the Gordon Phillips well in NW NW NW section 9 and Dorman & Jones' well in NW NW SE section 15. Billings Township is located east of the southern Buckeye pool.

Isabella County

One completion, one dry hole, and two other wells casing on top of the Dundee sand summarized activities of the week in Isabella County. Morris Oil & Gas Corp. No. 1 Dimon, SE SW SW section 34, Denver Township, drilled ahead to the Dundee after two successful months of production from the Traverse structure. It flowed 150 bbls. in 24 hours at a depth of 3,803 feet, and was to get a 3,000-gallon shot of acid for reopening over the week-end.

Garfield Petroleum Co. No. 11 McKinnon, NW NW NE section 5, Vernon Township, was abandoned as a dry hole this week at 3,903 feet.

Sherman Township continued to develop its pool with three completions and others due. Rowmor Corp. No. 3 Leitner, NW NE SW section 33, was completed with a flow of 290 bbls. at a depth of 3,659 feet. Acid treatment was to be given.

Acidization of the McClanahan No. 2 Embrey in section 33, resulted in increasing the flow from 300 bbls. to 695 bbls. naturally.

Pure Oil Co. had two wells coming in as the week closed. Its No. 5 Rykman, NW SE NE section 33, is undergoing deepening after logging a natural flow of 300 bbls. at a depth of 3,656 feet. The same company's No. 4 Embrey, on the line between sections 33 and 34, is reported ready to hit the heavy pay stratum.

Saginaw County

Two Saginaw County efforts to bring the county again into the Michigan oil picture were reported this week. The Midwest-Janicke Co. No. 1 Spurbeck, SE SE SE section 6, Fremont Township, was spudding in late in the week. Doran & Hilliard No. 1 Dubshenski was down 1,400 feet this week in NW NW SE section 33 of Lakefield Township. The Marshall and Red Rock formations were reported to be running 40 feet high. Another test was reported in N half NE section 1, of Lakefield Township, but its operator was unidentified.

25 Prospective Operations

Seven counties shared in the list of 25 permits issued for oil and gas drilling the past week by the state conservation department. Isabella County lists seven, all except one in proved territory; Midland County lists six, including a wildcat by Sun Oil Co. on Consumers Power Co. property in Edenville Township. Arenac County shows six permits in Clayton Township, four to Weber Oil Co. in search of oil and two to Fletcher & Leman, marking the beginning of their effort to create a 5,000,000,000-foot gas reserve to meet contract terms with Consumers Power Co.

Gladwin County, scene of the Buckeye field strikes that put new spirit in Michigan's oil development, took only three permits for the week, all proved locations in Buckeye Township.

There was one permit for the new Salem field in Allegan County, one for a wildcat test in Moorland Township, Muskegon County, and one in West Branch Township of Ogemaw County.

California Field Report

O'DEA ZONE AGAIN PROVES PRODUCTIVE IN ROSECRANS

By
L. P. STOCKMAN

LOS ANGELES, Calif., July 19.—Union Oil Co. confirmed the deep zone discovery of Barnsdall Oil Co. in the Rosecrans field of Los Angeles Basin by completing No. 16 Rosecrans in the recently discovered O'Dea zone, flowing 961 bbls. of clean 35.1-gravity oil daily from 7,560 feet. Completion of this new well, the second in the O'Dea horizon of Miocene age, substantially increases the proved oil reserves of Barnsdall Oil Co. and Union Oil Co., which control the largest amount of potentially productive acreage in the Rosecrans field. The latter holds leases on 199 acres and has a 30 per cent interest in the O'Dea lease, on which the deep zone discovery was made. Barnsdall holds a production interest in certain leases of the Union Oil Co. in the Rosecrans field. Both Barnsdall and Union have started additional wells to the new O'Dea zone. Bolsa Chica Oil Co. has reached 7,760 feet in its No. 1 on leases held by Exeter Oil Co., and Universal Consolidated cemented a string of casing in No. 1 Trust, bottomed at 7,580 feet.

El Segundo

Ohio Oil Co. in El Segundo field of Los Angeles Basin completed Nos. 4 and 5 on the Gough lease in the northern part of the field. No. 5, bottomed at 7,357 feet, was brought in flowing 1,580 bbls. of clean 28.1-gravity oil along with 400,000 feet of natural gas. This east line offset of Standard Oil Co. No. 1 Refinery is flowing through a 1-inch bean and at last reports had not shown any evidence of a reduction in flow. No. 4 Gough was completed flowing 739 bbls. of relatively clean 26.5-gravity oil and 160,000 feet of gas per day from 7,196 feet. Republic Petroleum Co. No. 8 El Segundo, total depth 7,580 feet, would not flow and will be put on the beam. This well was recently taken off the beam and deepened into Schist in order to determine the production possibilities of the upper part of the basement. The uppermost portion of the Schist in El Segundo is rather badly faulted, and the company in resuming drilling operations had hoped that the fractured part of the Schist might carry oil. The recent completion of No. 1 Refinery of Standard Oil Co. and the completion a few days ago of No. 5 Gough of Ohio Oil Co. has stimulated interest in the northwestern end of the field and Ramsey & Wallace are building a rig for an outpost northwest of No. 1 Refinery and No. 5 Gough in section 12-3-15. Production has not been defined in the northwest end of the field. Union Oil Co. and Richfield Oil Corp. have determined the limits of production in the southern end of the field and the Texas Co. has defined the field on the east. The western limits of production remain undefined, although the last well of the Texas Co. on the Security lease proved to be a small pumper.

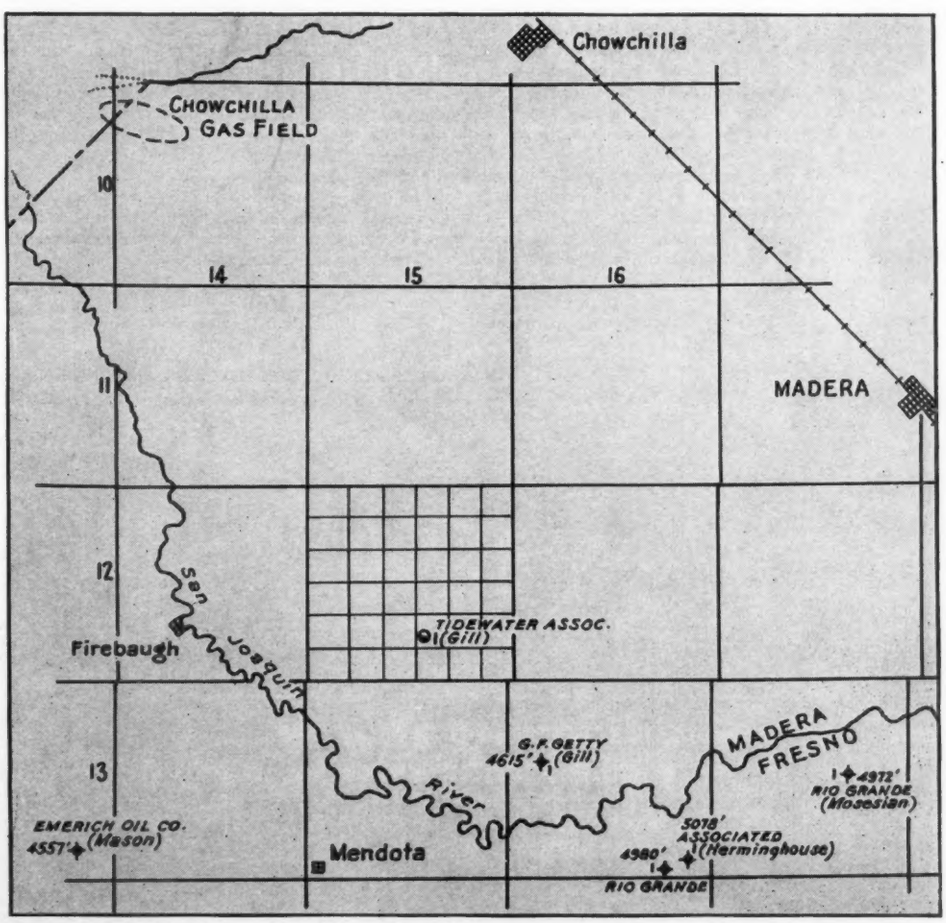
Inglewood

In the Inglewood field of Los Angeles Basin, the Kettleman & Inglewood Corp., owned jointly by Standard Oil Co., Honolulu Oil Corp. and Shell Oil Co., completed No. 25 Rubel, flowing 2,770 bbls. of clean 30.1-gravity oil daily from 3,938 feet. It was finished with 666 feet of 6⅝-inch liner including 517 feet of perforated, and was brought in flowing through two 1½-inch beans, and is producing 1,100,000 feet of gas per day. The well was completed in the third zone, and indicates that zone still has considerable kick. Standard Oil Co. is making preparations to spud in No. 84 Los Angeles Investment and the Texas Co. is rigging up rotary drilling equipment preparatory to deepening No. 1 Moynier.

Wilmington

Twelve wells were completed in the Wilmington field of Los Angeles Basin during the week and a check of work under way indicates the probable completion of another large group within the next two weeks. General Petroleum Corp., discoverer of the Wilmington field, finished one of the largest completions in this district when No. 10 Ford was brought in flowing 3,070 bbls. of relatively clean 23.7-gravity oil daily from 4,115 feet. It flowed through a three-quarter inch bean and showed a pressure of 480 pounds on the tubing and 1,230 pounds on the casing. Union Pacific Railroad Co., the largest holder of undeveloped acreage in the field, completed Nos. 25, 29 and 33, which registered an initial daily production of 4,235 bbls., ranging in gravity from 18.3 degrees to 22.6 degrees. No. 25 flowed 318 bbls. of relatively clean 18.3-gravity oil daily from 3,459 feet. It was finished with 467 feet of 8⅝-inch liner, including 434 feet of perforated, and 104 feet of 6⅝-inch liner, including 73 feet of perforated, and flowed through a 23 64-inch bean. This is the first well finished in the Wilmington field with a combination 8⅝-inch and 6⅝-inch liner. No. 29 flowed 2,715 bbls. of clean 20.8-gravity oil daily from 3,150 feet. It was finished with 618 feet of 8⅝-inch liner carrying perforations at 2,548-2,834 feet, 2,879-2,949 feet and at 3,003-3,140 feet. No. 33, bottomed at 3,196 feet, flowed 1,202 bbls. of relatively clean 22.6-gravity oil daily.

Royalty Service Corp. completed No. 1 Ollar flowing 631 bbls. of 17.2-gravity oil cutting 2.5 per cent daily from 3,625 feet, and No. 16-5-1 flowing 310 bbls. of 18.2-gravity oil daily from 3,622 feet. The latter hole was completed with a 6⅝-inch liner carrying perforations at 2,882-2,990 feet, 3,053-3,101 feet and at 3,221-3,622 feet. Sovereign Oil Corp. completed No. 4 Advance pumping 128 bbls. of 15.7-gravity oil, cutting 4.1 per cent daily, from 3,632 feet, and G. V. Leal completed No. 2 Wilmington, flowing 301 bbls. of relatively clean 16.9-gravity oil daily from 3,600 feet. The latter was finished with 745 feet of 8⅝-inch carrying 488 feet of perforated and flowed through a seven-sixteenths inch bean. Selegna Eastern Oil Co. completed its initial well in the Wilmington field when No. 5-W was brought in flowing 485 bbls. of 16.8-gravity oil daily from 3,630 feet. Graham-Loftus Oil Corp. No. 1 Pioneer, bottomed at 3,447 feet but plugged back to 3,380 feet, was completed flowing 131 bbls. of clean 17.9-gravity oil per day through an 18/64-inch bean. The A. C. P. Oil Co. No. 1 Wilmington Community started at 280 bbls. of 17.4-gravity oil per day through a 24/64-inch bean from 3,373 feet. It has an 8⅝-inch water string cemented at 3,094 feet, was finished with 323 feet of 6⅝-inch liner carrying 236 feet of perforated. D. D. Dunlap completed No. 2 Wilmington flowing 655 bbls. of relatively clean 18.7-gravity oil daily through a one-half inch bean. The well, which was cemented through perforations at 2,905 feet, carries 710 feet of perforated. Burnoel Petroleum Corp. No. 1 Elliott, flowed 100 bbls. of 17.8-gravity oil initially from 3,596 feet, but is being rigged up to pump. The well flowed by heads and apparently lacks sufficient pressure for sustained flow. It was finished with 319 feet



Tide Water Associated Oil Co. has started a new wildcat in the Firebaugh district of Madera County, southeast of the Chowchilla gas field

of 6⅝-inch liner including perforations at 3,320-3,480 feet and at 3,530-94 feet.

Kettleman Hills

In the Kettleman North Dome field, Kettleman North Dome Association (Kenda) completed Nos. 78-24-J in section 28-21-17 and 32-34-J in section 34-21-17 and both registered substantial production. The former, bottomed at 8,140 feet, flowed 545 bbls. of clean 34.7-gravity oil and 6,200,000 feet of gas per day from 8,140 feet. No. 32-34-J, which was cemented through perforations at 7,270 feet, 7,390 feet and at 7,580 feet, was brought in flowing 1,639 bbls. of relatively clean 35.1-gravity oil daily from 7,700 feet. Kenda's No. 4-18-J, located in the extreme western end of the North Dome field, showed water on a production test and a squeeze job has been effected around the shoe of the 6⅝-inch casing, which was previously landed and cemented at 10,715 feet. On a formation test this outpost, which is bottomed in formation of probable Eocene age, showed 150 feet of oil along with some mud and water. The well looks exceptionally good in view of the fact that the cement had only been drilled out 1 foot below the shoe of the water string. No. 4-18-J is bottomed at 10,753 feet and will prove of considerable importance if commercial production is developed as it will definitely indicate the probable existence of Eocene production in the Kettleman North Dome field. Engineers are generally in accord regarding the possibility of developing deeper production in the North Dome field and this appears quite likely, in the light of wells drilled down to the Eocene in the extreme western end of the structure. No. 1 Lillis-Welsh of Union Oil Co. definitely cored showings in rocks of probable Eocene age, but the well was so far off structure that commercial production was not developed. The possible existence of Eocene production was further evidenced during the week by the formation test conducted by Kenda on No. 4-18-J, which is located in section 18-21-17.

Lost Hills-Belridge

In the North Belridge field, Kern County, Belridge Oil Co., discoverer of Temblor and Eocene production in the field, completed No. 3-35 flowing 3,780 bbls. of clean 30.8-gravity oil daily from the Wagonwheel zone of Eocene age. This well, in section 35-27-20, has a 9-inch water string landed at 8,048 feet and was finished with 395 feet of 4¾-inch liner including 254 feet of 250-mesh. Continental Oil Co. No. 9 Result was cemented a few days ago at 8,190 feet and should be completed in the Wagonwheel zone with 10 days. In the Lost Hills field, the Texas Co. has completed No. 2-32 Theta in section 11-26-20, but may be obliged to reenter the hole and clean out sand, which is apparently hampering production. This well registered an initial daily production of 170 bbls. of 14.5-gravity oil daily from 1,226 feet. On the Williamson lease, in section 11-26-20, Tide Water Associated Oil Co. spudded No. 12-D and should reach the completion depth in either the first or second zone within a few days. Argo Petroleum Corp. spudded No. 1 Farnsworth in section 11-26-20 and should reach the pay within a week. This development is located in the extreme western end of the Lost Hills field but the results to date have not been any too satisfactory. Shallow production was developed in this area by Tide Water Associated Oil Co. and two shallow productive horizons have been discovered. The wells show favorable production upon completion but decline within a few days to a rather small amount.

Ten Section

In the Ten Section field of Kern County, Shell Oil Co. has completed No. 58-A Kern County Land in section 29-30-26 flowing 1,820 bbls. of relatively clean 32.7-gravity oil and 1,430,000 feet of gas per day from 8,154 feet, after the hole had been plugged back from 8,366 feet. It is quite likely that the well's potential will be substantially in excess of the initial as it is just getting under way. In section 30-30-26, Shell is preparing to spud No. 4-A Kern County Land. In the Greeley field of Kern County, Standard Oil Co. conducted a formation test on No. 11-4 Kern County Land and the results indicate a probable production of 560 bbls. of exceptionally clean 59.1-gravity oil and 17,000,000 feet of gas per day from 7,691 feet with the 9-inch water string landed at 7,635 feet. Upon conclusion of the formation test, the tester was pulled and preparations started to drill ahead to the Greeley zone, which produces a normal 36-gravity crude oil. In section 20-29-26, the company has completed derrick for No. 11-7 and drilling operations are scheduled to get under way within a few days.

Kern County

In the Midway-Sunset field of Kern County, Otis Hoyt No. 6 Maricopa was good for 130 bbls. of 14.1-gravity oil daily from 1,800 feet after the hole had been plugged back from 1,843 feet. It was finished with 342 feet of 4¾-inch liner including 335 feet of 375-mesh. The well was completed on a compressor. Signal Oil & Gas Co. completed No. 5 Wallace in section 8-11-23, pumping 70 bbls. of 26.2-gravity oil daily from 2,906 feet. The hole was finished with 75 feet of 5¾-inch liner including 55 feet of perforated.

In the Mount Poso field of Kern County, Shell Oil Co. completed No. 20 Security pumping 297 bbls. of clean 15.9-gravity oil per day from 1,794 feet and the Recovery Oil Co. completed No. 2 S. P. pumping 32 bbls. of 15.2-gravity oil daily from 1,504 feet. In the west front of the Kern River field Apex Petroleum Co. completed No. 3 in section 10-28-27 pumping 147 bbls. of 14.5-gravity oil per day from 2,177 feet after the hole had been plugged back from 2,247 feet where a gray water sand had been logged. This new well was finished with 195 feet of 6⅝-inch liner including 175 feet of perforated.

Coastal Area

In the Capitan field of Santa Barbara County Shell Oil Co. has completed No. 1-26 Covarrubias flowing 423 bbls. of clean 25.4-gravity oil and 46,000 feet of gas per day from 1,565 feet. The 8⅝-inch water string was cemented at 1,389 feet and 6⅝-inch liner hung at 1,563 feet. In the Santa Maria Valley field Pacific Western Oil Co. completed No. 1 Hobbs pumping 390 bbls. of 16.3-gravity oil per day from 4,227 feet. Continental Oil Co. No. 7 Grubb in the extreme eastern end of the San Miguelito field of Ventura County has shown a substan-

(Continued on Page 72)

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	July 8		July 1			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic:						
Diesel and gas oil	.....	.....	.....	.....	176,726	151,541
Gasoline	.....	.....	193,047	27,578	1,906,912	3,504,392
Kerosene	.....	.....	.....	.....	250,642	729,961
Foreign exports:						
Crude oil	50,911	7,273	291,426	41,632	7,019,395	4,830,193
Fuel oil	383,377	54,768	292,675	41,811	7,811,515	5,384,416
Diesel and gas oil	101,885	14,555	323,659	46,237	3,934,005	2,999,285
Gasoline	124,193	17,742	122,846	17,549	3,944,228	3,632,822
Kerosene	9,261	1,323	.....	.....	1,109,867	803,273
Other unfinished oil	.....	.....	.....	.....	576,948	16,894
Coastwise-domestic:						
Crude oil	156,931	22,419	188,937	26,991	1,721,351	3,589,194
Fuel oil	415,118	59,303	128,670	18,381	7,766,814	4,696,201
Diesel and gas oil	24,643	3,520	17,291	2,470	1,127,421	695,994
Gasoline	293,963	41,995	615,176	87,882	7,533,198	6,692,753
Kerosene	5,994	856	48,674	6,953	153,616	128,225

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic:						
Diesel and gas oil	.....	.....	.....	.....	152,932	.....
Gasoline	.....	.....	.....	.....	25,778	227,419
Asphalt	.....	.....	63,918	9,131	205,319	68,586
Lubricants	.....	.....	.....	.....	12,857	27,673
Foreign exports:						
Crude oil	.....	.....	61,345	8,764	1,538,082	1,593,167
Fuel oil	31,819	4,546	.....	.....	1,107,335	1,491,521
Diesel and gas oil	.....	.....	43,065	6,152	1,551,976	628,230
Gasoline	.....	.....	217,818	31,117	2,729,656	1,790,755
Kerosene	.....	.....	116,185	16,598	471,545	396,117
Lubricants	.....	.....	.....	.....	307,142	150,074
Coastwise-domestic:						
Fuel oil	122,695	17,528	147,931	21,133	3,384,962	3,787,985
Diesel and gas oil	38,416	5,488	.....	.....	499,109	388,473
Gasoline	86,608	12,373	92,564	13,223	2,366,379	2,753,661
Kerosene	18,279	2,611	.....	.....	103,214	88,330

STANDARD OIL CO. OF CALIFORNIA AND UNION OIL CO.

Crude oil prices at the well effective June 22, 1936

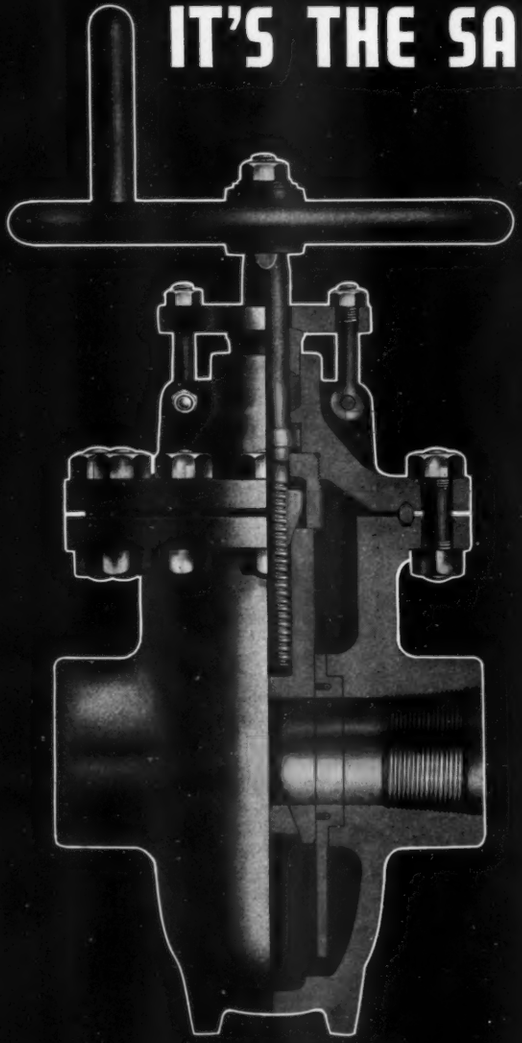
Gravity—	Signal Hill (Long Beach)	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda-Brea Canyon	Athens-Rosecrans	Dominguez	Elwood Terrace	Torrance	Richfield	Whittier E. Coyote (La Habra)	Montebello	W. Coyote Hills	Santa Fe Springs	Mountain View	Elk Hills Buena Vista Hills Midway-Sunset Lakeview Area	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills	Santa Paula*	Orcutt*
14-14.9	$ .80	$ .79	$ .74	$ .78	$ .79	$ .80	$ .76	....	....	....	$ .80	$ .76	$ .76	$ .77	$ .78	....	....	$ .70	$ .70	$ .70	....	....	$ .70	
15-15.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.70	.70	.70	....	....	.70	
16-16.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.70	.70	.70	....	....	.70	$ .70
17-17.9	.80	.79	.74	.78	.81	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.70	.70	.70	....	....	.71	.70
18-18.9	.80	.79	.74	.78	.84	.80	.78	....	....	....	.82	.76	.76	.77	.78	....	....	.70	.70	.70	....	....	.73	.72
19-19.9	.82	.79	.74	.82	.87	.84	.81	....	....	....	.85	.76	.78	.77	.78	....	$ .70	.74	.74	.71	$ .70	....	.75	.74
20-20.9	.85	.79	.74	.85	.90	.88	.84	....	....	....	.88	.78	.82	.77	.80	....	.70	.78	.78	.72	.70	....	.77	.77
21-21.9	.88	.79	.74	.89	.93	.93	.88	....	....	....	.91	.80	.85	.77	.84	$ .78	.73	.82	.82	.74	.70	....	.79	.80
22-22.9	.92	.82	.74	.92	.96	.98	.92	....	....	....	.93	.84	.89	.79	.88	.78	.77	.87	.86	.78	.72	....	.82	.83
23-23.9	.95	.86	.77	.96	.99	1.02	.96	$ .84	$ .79	....	.96	.88	.93	.82	.92	.78	.80	.92	.90	.82	.76	....	.85	.86
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	....	.99	.91	.96	.85	.96	.82	.84	.97	.94	.86	.79	....	.87	.88
25-25.9	1.03	.95	.82	1.03	1.05	1.11	1.03	.93	.83	....	1.02	.95	....	.89	.99	.86	.88	1.01	.98	.90	.83	....	.90	.91
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	....	1.05	.98	....	.92	1.03	.90	.91	1.08	1.02	....	....	....	.92	.93
27-27.9	1.10	1.05	.88	1.11	1.12	....	1.10	1.03	.88	....	....	1.02	....	.96	1.06	.95	.95	1.10	1.06	....	....	....	.95	....
28-28.9	1.14	1.10	.90	1.14	1.15	....	1.14	1.07	.90	....	....	1.06	....	.99	1.10	.99	.99	1.15	1.10	....	....	....	.97	....
29-29.9	1.17	1.15	.93	1.18	1.18	F.O.B.	1.17	1.12	.93	....	....	1.09	....	1.03	1.14	1.03	1.02	1.20	1.14	....	....	....	.99	....
30-30.9	1.21	1.19	.95	1.22	1.21	our	1.21	1.17	.95	F.O.B.	....	....	....	1.07	1.17	1.08	1.06	1.25	1.18	....	....	....	1.01	....
31-31.9	....	....	....	....	1.24	Pipe	1.24	1.22	.97	Ship	....	....	....	1.11	1.21	1.12	1.09	1.29	....	....	....	....	....	....
32-32.9	....	....	....	....	1.27	Line	1.27	1.27	1.00	....	....	....	....	1.14	1.25	1.16	1.13	1.34	....	....	....	....	....	....
33-33.9	....	....	....	....	....	....	....	1.32	....	$1.28	....	....	....	1.18	1.28	1.20	1.17	1.38	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	1.37	....	1.32	....	....	....	1.22	1.32	1.25	1.20	....	....	....	....	$1.19	....	....
35-35.9	....	....	....	....	....	....	....	1.42	....	1.35	....	....	....	1.25	....	1.29	....	....	....	....	....	1.23	....	....
36-36.9	....	....	....	....	....	....	....	1.46	....	1.39	....	....	....	1.29	....	1.33	....	....	....	....	....	1.27	....	....
37-37.9	....	....	....	....	....	....	....	1.51	....	1.43	....	....	....	1.32	....	1.37	....	....	....	....	....	1.31	....	....
38-38.9	....	....	....	....	....	....	....	1.56	....	....	....	....	....	1.36	....	1.42	....	....	....	....	....	1.35	....	....
39-39.9	....	....	....	....	....	....	....	1.61	....	....	....	....	....	1.40	....	....	....	....	....	....	....	1.39	....	....
40-49.9	....	....	....	....	....	....	....	1.66	....	....	....	....	....	1.43	....	....	....	....	....	....	....	1.43	....	....

Newhall, McKittrick, Kern River, Kern Front and Round Mountain, 70 cents for all grades. *Posted by Union Oil Co. Same company's Brea Canyon schedule stops at $1.14 for 28 degrees and over, and Belridge and Lost Hills schedule stops at $1.32 for 37 degrees and over.

THE BEAU BRUMMEL OF 1910

WOULD BE A *Wallflower Today!*

IT'S THE SAME WITH GATE VALVES



By comparison the W-K-M Through-Conduit Lubricated Gate Valve has made obsolete other models of today, as well as those in early oil history.

This Gate Valve, choice of the industry, is a far cry not only from early day oil country valves. It's in a class by itself today, thanks to exclusive patented features which, combined, are getting its many users around the world out of gate valve troubles, and keeping them out. These features are fully described and illustrated in W-K-M's Bulletin No. 641, available to you upon request. Ask for your copy.

It's different!

COSTS NO MORE THAN ORDINARY VALVES

Sold Through Supply Stores Everywhere

W-K-M Company, Inc.

OIL FIELD, PIPE-LINE & INDUSTRIAL EQUIPMENT

HOUSTON, Texas, U. S. A.

Export Office: 74 Trinity Place, New York

Cable Address: "WILKOMAC"

Eastern Field Report

By STAFF CORRESPONDENT

HEAVY STRING OF CASING IS RUN IN TEST NEAR HICKORY

PITTSBURGH, Pa., July 19.—The heaviest string of casing ever used in the east was successfully run in the deep test of Norwood Johnston and others on the James McBurney farm, south of Hickory in Mount Pleasant Township, Washington County, Pennsylvania. After relegging the rig and bringing in heavy equipment from the west, 6,190 feet of 8⅝-inch casing was run in the hole without a stoppage and hung on the casing ring and slips in the cellar. The elapsed time was 24 hours.

Starting with 38 pounds per foot, it was reduced to 36 pounds per foot, and the total suspended load was over 225,000 pounds. A gauge was used on the dead line. After running the pipe, the bailer was run and then the tools were run to knock out the cement plug in the shoe.

Drilling will now be resumed in this test which has been retarded by continuous gas blowouts and caving. If possible, the hole may be underdug to the Onondaga when that formation is reached.

The deep test of Potter Development Co., William E. Snee and others on the Indiana Savings & Trust Co. lease in Fairfield Township, Westmoreland County, on the Laurel Ridge dome, is also being cased. This string will be 7,600 feet of 26.4 pounds per foot, 6⅝ inch, long thread casing, and it will also weigh over 200,000 pounds. Over 2,000 feet of casing is now in the hole. It will be hung and then cemented in the Onondaga, the top of which was 7,575 feet with over 250,000 feet of gas in that formation at 7,594 feet. Due to caving, it was necessary to case before drilling for additional gas.

SOUTHEAST OHIO

The best producer for the week was No. 1,640 of Preston Oil Co. on the Sunday Creek Coal Co. lease in the SE quarter of section 35, Coal Township, Perry County. It was completed in the Clinton sand at a total depth of 3,519 feet and produced 225 bbls. the first day after shot.

In Hocking County, Franklin Trust Co. No. 154 and others completed No. 21 on the Cobb & Bradley lease in the SE quarter of section 30, Ward Township, in the Clinton sand at 3,386 feet. It produced 23 bbls. the first day after shot.

In Monroe County, N. T. Staudt and others completed No. 1 Platt Brothers in the NE quarter of section 5, Adams Township, in the Berea at 2,875 feet, gauging 100,000 feet.

In Vinton County, Kelch Oil & Gas Co. completed a test on the Everett Hutt farm near Mearthur in section 1, Richland Township, in the Berea at 875 feet, gauging 500,000 feet a day.

In Washington County, Earl Montgomery and others completed a test on the Jacob Gross farm in the Salt sand at 1,160 feet showing for a half barrel well. It had a light showing of oil in the Macksburg 700-Foot sand and was dry below it. It is in Lot 37, Salem Township. Near Bartlett, in section 30, Wesley Township, W. W. Walterson drilled No. 2 J. B. Francisco through the Macksburg 300-Foot sand to 548 feet and it was dry.

The deep test of Natural Gas Co. of West Virginia on the D. Deseilem farm in section 26, Wayne Township, Columbiana County, is drilling 200 feet in the Corniferous lime. The test on the J. C. Workman farm being drilled by this company is down 1,300 feet.

SOUTHWEST PENNSYLVANIA

Three producers and two gas wells were completed in Southwest Pennsylvania. In Wayne Township, Greene County, H. D. Freeland and others completed No. 3 D. L. Freeland at 2,996 feet. The Fourth sand was at 2,983 feet with 300,000 feet of gas at 2,993 feet. It is making oil along with the gas and it is estimated good for 15 bbls.

In Aleppo Township, Greene County, Cochran & Cochran completed No. 3 John Strope at 3,517 feet. the Fourth sand. The Fourth sand was at 3,501-17 feet with about 6 bbls. a day at 3,509-17 feet. In this district. these operators deepened No. 6 Strope heirs to 3,336 feet. the Fifth sand, showing for 10 bbls.

In Cumberland Township, Greene County, Carnegie Natural Gas Co. completed the test on the Titus farm at 3,030 feet. The Bayard Stray sand was at 2,929-75 feet with 82,000 feet of gas at 2,964 feet. The Elizabeth sand was at 2,983-90 feet with 94,000 feet of gas.

In Gilmore Township, Greene County, Equitable Gas Co. completed the test on the Z. D. Griffith farm at 3,195 feet. The Fifth sand was at 3,097 feet and the gas would not test before shot. It is being cleaned out for gauge.

In Amwell Township, Washington County, Equitable Gas Co. has made a location on the S. E. Reese farm. Carnegie Natural Gas Co. has reached 2,559 feet on No. 2 C. W. Farabes with the Gantz sand at 2,516-18 feet and the hole full of water. Peoples Natural Gas Co. is drilling at 2,280 feet on the Walter Redd farm. New Oil & Gas Co. is at 780 feet on the Tucker farm. Moore-Orill and others have reached 1,125 feet on the Martha Hazlett farm.

In South Franklin Township, Washington County, Lacock & Co. are deepening No. 1 J. M. Hanna at 1,003 feet Dunn Mar Oil & Gas Co. is spudding No. 3 J. T. Baldwin. Union Gasoline & Oil Corp. is spudding No. 2 B. F. McClain and is down 1,880 feet on the W. B. Hazlett farm. Carnegie Natural Gas Co. has made a location for No. 3 Alberta Iams and is drilling at 425 feet in No. 3 M. C. Manon.

In South Strabane Township, Washington County, Emerald Oil Co. is fishing 8¼-in. casing at 2,000 feet. In Peters Township, Benedum & Trees are down 2,170 feet on the Mary Boone farm. In Bethlehem Township, William Potts & Co. are drilling No. 2 Rose Mowl at 2,300 feet.

In Greene County, O. I. Dillie has a location on the J. M. Phillips farm in Richhill Township. Smith McCracken is fishing at 1,800 feet on the No. 1 Asa Hughes for the bailer. Natural Gas Co. of West Virginia is fishing the bit at 2,086 feet on the O. M. Grinnage farm.

Manufacturers Light & Heat Co. is drilling at 2,655 feet on the C. C. Wood farm in Franklin Township. The Fifty-Foot sand was at 2,480-2,535 feet with 47,000 feet of gas in the sand. In Center Township, this company is drilling at 1,349 feet on the W. L. Fordyce farm, and rigging up on the Frank D. Nichols farm.

In Center Township, Union Gasoline & Oil Corp. is drilling at 1,304 feet on the Mabel Bodley farm. South Penn Oil Co. is down 1,778 feet in No. 11 Samuel Harbey. J. B. Orndoff is drilling at 1,790 feet in No. 2 Mattie I. Scott.

In Springhill Township, Charles Covert is deepening No. 1 Whipkey heirs at 3,288 feet. The Fourth sand was at 3,283-85 feet with some gas at 3,288 feet. In Dunkard Township, Convex Glass Co. is drilling at 112 feet on the Van Voorhis farm. In Franklin Township, Waynesburg Home Gas Co. is spudding the Marguerite Grover test.

Deep Tests

In Lawrence County, the test of Carnegie Natural Gas Co. on the W. A. Currie farm in Shenango Township is drilling at 550 feet.

In Beaver County, the test of John T. Galey and others on the Minnie Weigle heirs farm in South Beaver Township is still trying to drill by the tools lost at 172 feet in the Corniferous lime.

In Hampton Township, Allegheny County, South Penn Oil Co. and others have run 8-inch casing shutting off the Hundred-Foot sand on the Christian Z. Schove farm. The depth was 1,654 feet.

On the Chestnut Ridge Summit, in South Union Township, Fayette County, no hole was made in No. 2 Summit Hotel and a water well is being drilled. In North Union Township, French, Fairman and others are hauling in material for the Louisa Varndell test.

WEST VIRGINIA

Six producers were completed in West Virginia. In Clay County, Virginia Gasoline & Oil Corp. completed No. 41 Brown, Swann, Goshorn & Geary in Henry district in the Injun sand at 1,857 feet, showing for 4 bbls.

In Roane County, D. H. Bland and others completed a test on the Samuel Shafer heirs farm in Walton district in the Salt sand at 1,657 feet. It produced 25 bbls. the first day. Twelve years ago a test on this farm by L. M. Mayfield made 50 bbls. the first day and was exhausted. In Center district, Henderson Oil Co. completed No. 3 E. S. Ball in the Salt sand at 1,829 feet good for 3 bbls.

In Wayne County, Huffman & York completed the test on the Maggie Patten farm in Butler district in the Berea sand at a depth of 2,160 feet, showing for 5 bbls.

In Wirt County, W. C. Patterson completed No. 19 Robinson Petroleum in Clay district in the Cow Run sand good for 1½ bbls.

In Wood County, Albert Congdon and others completed No. 7 Charles Grant in Walker district in the Berea sand at 2,215 feet, good for 8 bbls.

Gas Wells

In Boone County, Owens Illinois Glass Co. completed No. 16 Little Coal Land Co. in Washington district at 1,933 feet. The Big lime was at 1,161-1,399 feet; gas, 1,231-89 feet; Big Injun, 1,399-1,430 feet; Berea, 1,872-1,903 feet; gas, 1,877-83 feet. The gauge is 286,000 feet a day. In Scott district, this company completed No. 2 V. G. Vandelinde at 2,118 feet. Big lime was at 1,421-1,588 feet; Big Injun, 1,600-47 feet; Berea, 2,086-2,107 feet; gauging 139,000 feet a day at 2,093-2,102 feet.

In Scott district, this company completed No. 4 Jacob Chambers in the Berea sand at 1,985 feet gauging 336,000 feet. In Sherman district it completed No. 31 Peytona Coal Land Co. at 4,783 feet, gauging 104,000 feet from the Big lime and 149,000 feet from the Berea.

In Braxton County there were two dry holes. In Otter district, Pittsburgh & West Virginia Gas Co. drilled No. 7,591 G. B. Howell to 2,736 feet and it was dry. The Salt sand was at 1,614-1,740 feet; some gas at 1,729 feet; Big lime, 2,128-2,200 feet; Big Injun, 2,200-2,300 feet; Berea, none. In Birch district, this company drilled No. 7,597 Parkersburg Mills Co. to 2,665 feet. It was dry. Big lime was at 1,909-2,005 feet; Big Injun, 2,005-95 feet; Berea, none. There was a small gas show in the Big Injun.

In Calhoun County, Godfrey L. Cabot, Inc., completed No. 10 Allen Hardman in Center district at 2,017 feet. Big Injun sand was at 1,985 feet with 740,000 feet of gas at 1,985-2,017 feet.

In Gilmer County there were three gas wells and one dry hole. In Glenville Independent, Carnegie Natural Gas Co. completed No. 3 Floyd and Allen in the Maxton sand at 1,242 feet good for 800,000 feet. No. 4, same lease, was completed at 1,235 feet, Maxton sand, for 500,000 feet. The First Salt sand was at 810-840 feet; Second, 999-1,053 feet; Maxton, 1,185 feet; gas, 1,000-14, 1,035-45 and 1,215-20 feet.

In this district, Paul Weekley completed the test on the Ruppert Woodyard farm in the Big Injun good for only 23,000 feet from 1,750 feet. McCall Drilling Co. drilled the test on the Reger Brothers farm to 1,825 feet and it was dry. Big Injun was at 1,458-1,565 feet.

In Marion County, Victor Oil & Gas Co. completed the Elmer H. Talkington test in Lincoln district at 2,412

(Continued on Page 88)

Kansas Developments

By
DAL DALRYMPLE

COMPLETE BEMIS EXTENSION WELL; ACTIVITY INCREASING

Oil operators continued to set a fast pace in Kansas the past week, completing 89 oil wells, gassers and dry holes, including pool openers or extensioners in Barber, Elk, Sumner and Rice counties. Offsetting this large number of completions were 103 first reports of locations and new work started throughout the state.

The busy Bemis pool of Ellis County and the Trapp district of Russell County, paced the state, with seven large producers completed at Bemis, including an eastern extensioner, and six big wells at Trapp.

The Westhusin area of Rooks County was given a boost by Leavell Coal Co. and others No. 1 Baxa, NW section 12-9-17w, which was reported good for 1,110 bbls. of oil in 24 hours from Kansas City lime at 3,255 feet.

Completion of a comparatively large producer for the old, shallow areas of eastern Kansas was reported on the Neosho Falls townsite, Woodson County. It was the Trinity Oil & Gas Co. well, which produced 175 bbls. of 36-gravity oil daily at 1,175 feet, total depth.

The Kansas Corporation Commission has taken under advisement charges that there has been over-production in the Hauschild area of Rice County, following a hearing the past week.

Estimated Daily Production

Estimated daily production of Kansas for the week ending July 17, and for the preceding week, was as follows:

	Barrels	
	July 17	July 10
Oxford City	1,775	1,750
Burrton	13,950	14,800
Ritz-Canton	5,750	5,600
Graber	2,625	2,800
Hollow-Nikkel	3,050	2,850
Lerado	2,950	1,850
Voshell	2,475	2,150
Wellington	3,450	2,825
Ellsworth County:		
Lorraine	4,350	4,250
Other pools	1,265	1,305
Rice-Barton counties:		
Bloomer	4,400	3,900
Chase	7,525	7,375
Geneseo	2,325	1,825
Raymond	1,575	2,575
Silica	21,200	18,875
Keesling	1,625	1,650
Hauschild	875	1,800
Miscellaneous Rice	11,365	11,070
Miscellaneous Barton	4,375	5,300
Russell County:		
Fairport	2,095	2,060
Gorham-East Gorham	2,225	2,020
Russell	2,390	1,920
Sullivan	8,455	7,540
Trapp	9,855	9,695
Miscellaneous Russell	7,005	7,270
Sedgwick County:		
Valley Center	1,045	1,220
Miscellaneous	2,980	3,065
Ellis County:		
Bemis	5,000	4,850
Miscellaneous	2,745	3,380
Kingman County	815	575
Stafford County	3,575	3,410
Greenwood County	9,600	9,575
Butler County	16,000	15,975
Other fields	26,760	25,070
Total Kansas	197,450	192,175

Wildcat Completions

Pryor & Lockhart and others new pool opener in Barber County was completed at No. 1 Gant, C SE section 7-31-13w. The wildcat topped anhydrite at 603 feet, Kansas City lime 3,840 feet, and had Viola lime, the producing horizon, at 4,435-40 feet, total depth. It swabbed and flowed 90 bbls. of oil in 24 hours; then 110 bbls. in 24 hours. After acidizing it produced 771.20 bbls. in 12 hours, and made potential of 1,351 bbls.

A new oil area was opened in Elk County at Tyrell and others No. 1 Sellars, SE cor. section 11-31-9, west of Moline. It was an old wildcat deepened from 1,522 feet to 2,322 feet, acidized and pumped 170 bbls. of oil daily. Mississippi lime was topped at 2,300 feet.

In Sumner County, Faulkner and others No. 1 Nevitt, NE NW NE section 36-32-2e, south of the Oxford pool, an old wildcat, was plugged back from 3,570 feet to 2,830 feet, acidized and pumped 100 bbls. of oil in three days. It was estimated good for 35 bbls. daily. John Burton and others No. 1 Springate, NE NE SW section 30-33-2e, wildcat, was abandoned at 91 feet, total depth.

D. R. Lauck No. 1 Heter, SE NE SE section 1-21-8w, northwest of the Saxman-Theede area, Rice County, topped Conglomerate at 3,341 feet, total depth 3,354½ feet, was shot, pumped 154 bbls. of oil in six hours and made potential of 582 bbls.

In Barton County, Shell Petroleum Corp. No. 1 Schneider, C SE section 12-16-14w, wildcat, had Siliceous lime at 3,323 feet and was dry and abandoned at 3,352 feet, total depth. Republic Natural Gas Co. and Continental Oil Co. No. 1 Moeder, NE NE SW section 25-17-13w, wildcat, found Siliceous lime at 3,370 feet and was dry and abandoned at 3,430 feet, total depth.

Rose Spring Drilling Co. and others No. 1 Gray, NW cor. section 11-24-13w, Stafford County wildcat, had a hole full of water and was dry and abandoned in Siliceous lime at 4,030-34 feet, total depth.

A wildcat failure was recorded in McPherson County at Smith and others No. 1 Larson, NW NW SW section 35-18-5w. It topped Mississippi lime at 3,360 feet and was dry and abandoned at 3,503 feet, total depth.

In Sedgwick County, Ryan Consolidated Corp. and others No. 1 Williams, NE NE SW section 17-25-2w, wildcat, had Siliceous lime at 4,025 feet and was dry and abandoned at 4,063 feet, total depth.

Duwe & Brouk No. 1 Lebsack, SE SE NE section 13-16-16w, wildcat in Rush County, found Siliceous lime at 3,492 feet, total depth 3,512 feet, and was dry and abandoned.

S. C. Hoel and associates failed to find oil production at No. 1 Ives, SW SW NE section 11-7-18w, Rooks County wildcat, and it was dry and abandoned after getting a hole full of water at 3,565 feet, total depth. Top of Siliceous lime was 3,493 feet.

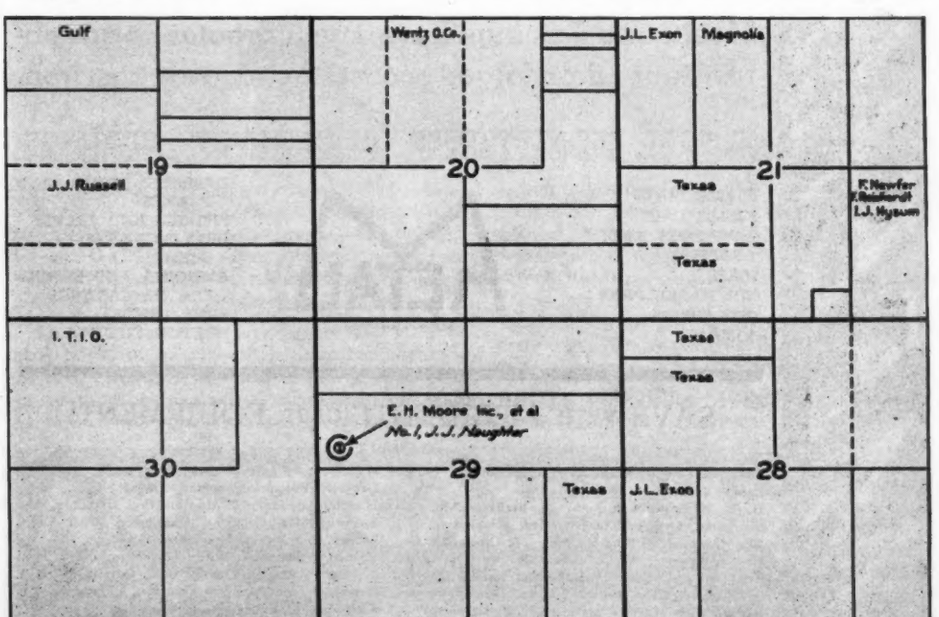
In Scott County, Olson Drilling Co. and others No. 1 Nolan, NW NW NE section 13-19-33w, wildcat, had Mississippi lime at 4,810 feet, total depth 5,035 feet, and was dry and abandoned.

Six wells were completed in the Trapp district, Russell County. W. I. Southern, Inc., No. 4 Sellens heirs B, SW SW NW section 30-15-13w, was acidized and pumped 1,101 bbls. of oil in 12 hours, making potential of 2,203 bbls. It had Siliceous lime at 3,291-96 feet, total depth. Same operators No. 5 Sellens heirs B, NE SE NW section 30-15-13w, had Siliceous lime at 3,283-85 feet, total depth, was acidized, pumped 1,206 bbls. of oil in 12 hours and made potential of 2,412 bbls.

Gulf Oil Corp. No. 6 Hoffman, NW NW SW section 31-15-13w, had Siliceous lime at 3,266 feet, total depth 3,277 feet, swabbed 357 bbls. of oil in six hours, was acidized and made potential of 1,716 bbls. Phillips Petroleum Co. No. 11 Hoffman, NW SE SE section 31-15-13w, Siliceous 3,335 feet, total depth 3,342 feet, swabbed 428 bbls. of oil in 15 hours, potential 1,656 bbls. Empire Oil & Refining Co. No. 1 Boomhower, SW NW NE section 25-15-14w, Siliceous lime 3,313 feet, total depth 3,319 feet, acidized, pumped 1,075 bbls. of oil in 12 hours, potential 2,151 bbls. Darby Petroleum Corp. No. 2 Michaelis, SE NE SE section 36-15-14w, Siliceous 3,278 feet, total depth 3,322 feet, pumped 232 bbls. of oil in 12 hours, potential 465 bbls.

Completions elsewhere in Russell County: Shell Petroleum Corp. No. 1 Smith, NW NE SW section 31-13-14w, total depth 3,348 feet, plugged back to 2,793 feet, dry and abandoned. British American Oil Producing Co. No. 3 Boxberger, SW NE NE section 33-13-14w, Siliceous lime 3,278-79 feet, total depth, acidized, pumped 1,320 bbls. of oil in 20 hours, 3 per cent water. Skelly Oil Co. No. 4 Boxberger, SE NW NE section 33-13-14w, Siliceous lime 3,281 feet, total depth 3,296½ feet, plugged back to 3,292 feet, pumped 930 bbls. of oil in 24 hours. Texas Co. No. 2 Brandenburg, NE NW NW section 20-14-14w, Kansas City lime 3,000 feet, total depth 3,050 feet, acidized, pumped 640 bbls. of oil in 24 hours. Phil-Han Oil Co. and others No. 1 Michel, NW NE SW section 36-14-14w, Kansas City lime 2,901 feet, total depth 2,946 feet, acidized, pumped 128 bbls. of oil in three hours, potential 1,073 bbls. in 23 hours.

Central Petroleum Co. No. 12 Foster B, SE NE NE



Mid-Continent Map Co., Wichita

E. H. Moore, Inc., and others are drilling ahead at No. 1 Naughter, section 29-29-1e, wildcat south of the Robbins pool in Sedgwick County

section 3-14-15w, Gorham sand 3,302-04 feet, total depth. pumped 2,352 bbls. of oil in 24 hours. Carter Oil Co. No. 5 Detrich, C N half S half SW section 8-15-13w. Siliceous lime 3,170-76 feet, total depth, potential 1,656 bbls. of oil. Same company's No. 1 Josephine, SE cor. section 7-15-13w, an old well, deepened from 2,895 feet to 2,980 feet, potential 832 bbls. of oil. Skelly Oil Co. No. 1 Rein, Jr., SW NW SW section 8-15-13w, Siliceous lime 3,224 feet, total depth 3,228 feet, acidized, pumped 1,220 bbls. of oil in 12 hours, potential 2,381 bbls.

Ellis County

The Bemis field of Ellis County continued to set a fast pace, with seven large producers being completed the past week. One was an east extensioner, the Lebow and others No. 1 Richmond, SW SW SE section 15-11-17w. It had Siliceous lime at 3,440-44 feet, total depth, pumped 718 bbls. of oil in six hours, making potential of 2,586 bbls.

Margay Oil Co., pioneer operator at Bemis, completed three oil wells. The No. 7 Bemis C, SE NE SW section 22-11-17w, had Siliceous lime at 3,469-74 feet, total depth, pumped 735 bbls. of oil in six hours, making potential of 2,649 bbls. The No. 8 Bemis C, NE NE SW section 22-11-17w, topped Siliceous lime and set 7-inch casing at 3,444 feet, total depth 3,453 feet, pumped 424 bbls. in six hours, potential 1,528 bbls. The No. 1 Johansen, SW SW SE section 22-11-17w, found Siliceous lime at 3,443-49 feet, total depth, pumped 667 bbls. of oil in six hours, potential 2,404 bbls.

Texas Co. No. 4 Bemis A, NE SE NE section 28-11-17w, pumped 900 bbls. of oil in six hours and made potential of 2,955 bbls. of oil from Siliceous lime at 3,554 feet, total depth 3,567 feet.

Deep Rock Oil Corp. No. 7 Baumer, SW SW NE section 27-11-17w, topped Siliceous lime at 3,530 feet, total depth 3,542 feet, pumped 645 bbls. of oil in six hours and made potential of 2,323 bbls. Same company's No. 9 Baumer, SE NW NW section 27-11-17w, had Siliceous lime at 3,454 feet, total depth 3,464 feet, pumped 758 bbls. of oil in six hours, potential 2,730 bbls.

Carter Oil Co. No. 4 Staab, SW SE NW section 11-12-18w, found Siliceous lime at 3,651-56 feet, total depth, pumped 166 bbls. of oil in three hours and 50 minutes, was acidized, and pumped 1,146 bbls. in 22 hours and 45 minutes.

Magnolia Petroleum Co. No. 1 Johansen, SW NW SE section 22-11-17w, east edge of the Bemis pool, had a hole full of oil from Siliceous lime at 3,431-36 feet, and was due for a test. Twin Drilling Co. No. 1 Madden, SE NE section 29-11-17w, swabbed 49 bbls. of oil in 50 minutes, lowering oil in the hole from 1,950 feet to 1,500 feet; oil rose again to 1,950 feet, and was lowered to 1,250 feet by swabbing 37 bbls. of oil in 50 minutes.

Barton County

Stanolind Oil & Gas Co. No. 1 Panning, NE NE NW section 11-20-11w, Barton County sector of the Silica district, was bottomed at 3,274 feet, pumped 809 bbls. of oil in eight hours, making potential of 2,330 bbls. Gulf Oil Corp. No. 1 Meyer, SW SW SE section 13-20-11w, pumped 15 bbls. of oil daily after plugging back to 3,333 feet from 3,335 feet, total depth.

In the Bloomer field, Texas Co. No. 2 McLean, SW SE NE section 25-17-11w, topped Siliceous lime at 3,305 feet, total depth 3,315 feet, plugged back to 3,313 feet, pumped 1,340 bbls. of oil in 20 hours, later pumped 624 bbls. in 12 hours and made potential of 1,248 bbls. National Refining Co. No. 6 McLean, NE SE SE section 25-17-11w, had Siliceous lime at 3,318 feet, total depth 3,320 feet, pumped 105 bbls. of oil and 16 bbls. of water in 12 hours, making potential of 210 bbls. of oil. Spencer & Yarnell No. 6 Patzner A, SE SW SE section 36-17-11w, pumped 857 bbls. of oil in 12 hours, making potential of 1,714 bbls. from Siliceous lime topped at 3,242 feet, total depth 3,247 feet.

Other Barton County completions: Empire Oil & Refining Co. No. 1 Bitter, NW cor. section 5-16-13w, topped Siliceous lime at 3,297 feet, total depth 3,307 feet, acidized, pumped 487 bbls. of oil in eight hours, later pumped 1,041 bbls. in 12 hours, potential 2,083 bbls. Texas Co. No. 1 Hoffman, NW cor. section 6-16-13w, Siliceous lime 3,283 feet, total depth 3,286 feet, pumped 524 bbls. of oil in 12 hours, acidized, potential 1,620 bbls. Continental Oil Co. No. 2 Ainsworth A, SW SE NE section 33-16-13w, found Siliceous lime at 3,387 feet, total depth 3,397 feet, acidized, pumped 1,176 bbls. of oil in 24 hours. Campbell and others No. 1 Robenseifer, C NW section 7-18-15w, Otis area, had sand at 3,550 feet, total depth 3,599 feet, and produced 28,700,000 feet of gas.

Reno County

Another producer was completed in the Lerado field, Reno County, at Empire Oil & Refining Co. No. 5 Mauck, SE SE NW section 15-26-9w. It was bottomed in Viola lime at 4,143 feet, was acidized and flowed 577 bbls. of oil in six hours, making potential of 2,186 bbls.

In the Burrton district, Haynes Drilling Co. and others No. 5 Muelier, SE NE NW section 30-24-4w, topped Chat at 3,340 feet, total depth 3,398 feet, was treated with acid and pumped 424 bbls. of oil and 127 bbls. of water in 24 hours. Phillips Petroleum Co. No. 3 Astle Island, SW NE NE section 19-24-4w, found Chat at 3,328 feet, was bottomed at 3,377 feet, swabbed 21 bbls. of oil and 38 bbls. of water daily, was acidized and pumped 53 bbls. of oil and 60 bbls. of water in 24 hours. A. M. Ballard and others No. 1 Skelly, NW SE NE section 16-24-4w, had Chat at 3,310 feet, total depth 3,365 feet, pumped and flowed 80 bbls. of oil and 40 bbls of water in 24 hours, was acidized, and pumped and flowed 201 bbls. of oil and 83 bbls. of water daily.

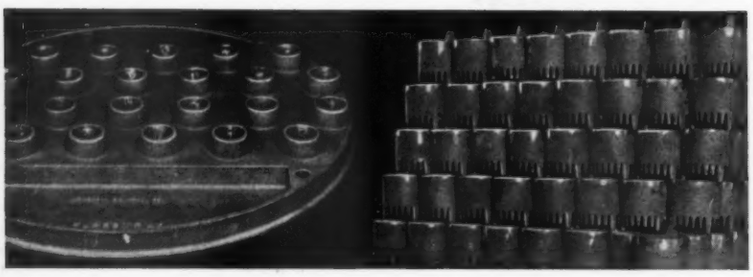
Rust & Gano No. 1 Heidebrecht, C SW NE section 26-22-4w, was bottomed at 3,370 feet, plugged back to 3,362 feet and produced 1,500,000 feet of gas daily.

Rice County

A quartet of wells were completed in the Hauschild-Saxman-Theede area, Rice County. L. E. Douglass and others No. 8 Theede, SE SW SW section 9-21-7w, found Conglomerate at 3,370 feet, total depth 3,396 feet, pumped 278 bbls. of oil in six hours and made potential of 1,054 bbls. Garden & Haines No. 4 Gossman, SW NE NW section 9-21-7w, was completed as a minimum well, pumping 15 bbls. of oil daily from Chat at 3,368 feet, total depth 3,372 feet. Sunflower Oil Co. No. 3 Stange, SE SW NW section 16-21-7w, was bottomed at 3,460 feet and was dry and abandoned after plugging back to 3,397 feet and shooting. Westgate-Greenland Oil Co. and others No. 2 Johnson, SE SE NE section 17-21-7w, had Conglomerate at 3,386 feet, total depth 3,397 feet, and pumped 15 bbls. of oil daily.

In the Silica area, J. H. Tatlock No. 7 Drew, SE NW SW section 5-20-10w, found Siliceous lime at 3,311½ feet, was bottomed at 3,317 feet, acidized, pumped 256 bbls. of oil in six hours, potential 922 bbls. Same operator's No. 6 J. Berscheit A, NW SE SW section 6-20-10w,

MEEHANITE CASTINGS



CORROSION-RESISTING!

Meehanite Metal is recommended for service in refinery stills and in other applications where chemical attack must be dealt with. For such uses, Meehanite Castings have much greater corrosion-resistance than forged or cast steel, or gray cast iron.

TYPICAL REFINERY USES OF MEEHANITE CASTINGS:

BUBBLE TRAYS
BUBBLE CAPS
DOWNPIPES AND BAFFLES
TRAPS
SIDE TO SIDE PANS
TUBE SHEETS
COLUMNS

METAL
Registered Trade Mark

DAMPERS, DOORS, AND FRAMES
FITTINGS AND VALVES
HEAT-EXCHANGER SHELLS
AMMONIA AND REFRIGERATOR CASTINGS
PUMP LINERS
PIPE AND FITTINGS

SAVE WITH MEEHANITE-CAST EQUIPMENT!

CONSULT:

American Laundry Machinery Co., Rochester, N. Y.
Banner Iron Works, St. Louis, Mo.
H. W. Butterworth & Sons Co., Bethayers, Pa.
Cincinnati Grinders Incorporated, Cincinnati, O.
The Cincinnati Milling Machine Co., Cincinnati, O.
Cooper-Bessemer Corporation, Mt. Vernon, O.
Crawford & Doherty Foundry Co., Portland, Ore.
M. H. Detrick Co., Peoria, Ill., and Newark, N. J.
Farrell Birmingham Co., Ansonia, Conn.
Florence Pipe Foundry & Machine Co., (R. D. Wood Co., Philadelphia, selling agents)
Fulton Foundry & Machine Co., Cleveland, O.
G. H. R. Foundry Company, Dayton, O.
Greenlee Foundry Company, Chicago, Ill.
Hamilton Foundry & Machine Co., Hamilton, O.
Kanawha Mfg. Company, Charleston, West Va.
Kinney Iron Works, Los Angeles, Calif.
Koehring Company, Milwaukee, Wis.
Michigan Valve & Foundry Co., Detroit, Mich.
Rosedale Foundry & Machine Co., Pittsburgh, Pa.
Ross-Meehan Foundries, Chattanooga, Tenn.
Vulcan Foundry Company, Oakland, Calif.
Warren Foundry & Pipe Corp., Phillipsburg, N. J.
Washington Iron Works, Seattle, Wash.

had Siliceous lime at 3,290-95 feet, total depth, was acidized, pumped 429 bbls. of oil in six hours and made potential of 1,545 bbls.

Bradley Oil Co. and others No. 1 Grizzell C W half W half SW section 5-19-9w, was dry and abandoned in Siliceous lime at 3,232-44 feet, total depth.

Several Rice County wells were near completion. Continental Oil Co. No. 1 Powell, SW SE NW section 31-18-7w. total depth 3,230 feet, was acidized, made potential of 588 bbls. of oil, was reacidized and waiting. Same operator's No. 2 Lansing, SE NE SW section 25-18-8w, had 1,000 feet of oil in the hole at 3,145 feet, total depth. Transwestern Oil Co. and others No. 2 Clair, C W half E half NW section 4-18-10w, total depth 3,280 feet, was acidized and pumped 380 bbls. of oil in 17 hours. Comanche Oil Co. No. 1 Cramm, SW SW SE section 15-19-9w, wildcat, was waiting after second acid treatment. It pumped 666 bbls. of oil in 24 hours after first acid treatment, total depth 2,947 feet. Rose & Son No. 2 Callis, C S half S half SW section 32-19-9w, pumped 101 bbls. of oil in five hours at 3,238 feet, total depth. Atlantic Refining Co. No. 2 Doran, C E half E half SE section 13-19-10w, total depth 3,299 feet, had 1,500 feet of oil in the hole in 10 hours, was acidized and waiting.

McPherson County

Ohio Oil Co. No. 14 Decker, NE NE SE section 20-21-1w, Graber pool, McPherson County, topped Hunton lime at 3,306 feet, total depth 3,340 feet, was acidized and pumped 238 bbls. of oil and 139 bbls. of water in 24 hours.

Continental Oil Co. No. 6 Blair, NW NW SW section 21-21-1w, pumped 73 bbls. of oil and 800 bbls. of water in 24 hours after plugging back from 3,317 feet, total depth, to 3,312 feet and acidizing. Top of Hunton lime was 3,310 feet.

Harvey County

Olson Drilling Co. and Shell Petroleum Corp. No. 5 Nelson, SE SW NW section 30-23-3w, Harvey County sector of the Burrton field, found Chat at 3,280 feet, total depth 3,365 feet, was acidized and flowed 866 bbls. of oil in 24 hours.

Ellsworth County

A new producer was completed in the Ellsworth County sector of the Bloomer field at Yoches and others No. 1 Patzner, SW SE NW section 30-17-10w. It found Siliceous lime at 3,287-91 feet, total depth, was acidized and made potential of 1,515 bbls. of oil.

Phillips Petroleum Co. No. 3 Patzner, NW SW SW section 30-17-10w, was dry and abandoned in Siliceous lime at 3,323-25 feet, total depth. Gulf Oil Corp. No. 8 Grizzell, SW SE NW section 31-17-10w, was dry and abandoned in Schist at 3,262-3,491 feet, total depth.

Rush County

Carter Oil Co. No. 2 Woodward, SW SW SE section 23-18-16w, Otis area, Rush County, based sand at 3,543 feet, was bottomed at 3,560 feet, pumped 16 bbls. of oil in six hours, was shot and made potential of 131 bbls. Same company's No. 1 Rubart, SE cor. section 24-18-16w, total depth 3,343 feet, was shot, pumped 40 bbls. of oil and 40 bbls. of water in 24 hours, with gas estimated at 6,000,000 feet.

Stafford County

Stanolind Oil & Gas Co. and others No. 3 Brock, C W half W half NW section 6-23-11w, found Siliceous lime at 3,706 feet and was dry and abandoned at 3,725 feet, total depth. It is in the Richardson area, Stafford County.

Stevens-Grant Counties

Panhandle Eastern Pipe Line Co. No. 1-11 Younggren, C SE section 11-32-39w, Hugoton area, Stevens County, was bottomed at 2,800 feet and produced 7,000,000 feet of gas

Columbian Fuel Corp. No. 1 Maxwell, C SW section 4-29-36w, Hickok area, Grant County, produced 6,500,000 feet of gas and was completed at 2,734 feet, total depth.

Sumner County

Two producers were completed in the Wellington pool, Sumner County. Stelbar Oil Corp. No. 15 Barlow B, SE SW SE section 33-31-1w, topped Chat at 3,654 feet, total depth 3,691 feet, flowed 140 bbls. of oil in 24 hours, was acidized and flowed 1,069 bbls. in 24 hours.

Amerada Petroleum Corp. No. 2 Nelson, SE SE NW section 5-32-1w, had Chat at 3,647-89 feet, total depth, flowed 102 bbls. of oil in 15½ hours, was treated with acid and pumped and flowed 524 bbls. of oil and 34 bbls. of water in 24 hours.

Cowley County

Another large producer was completed in the Weathered pool, Cowley County, at Lloyd, Frost & Study No. 3 Wilson, NE SE SW section 33-31-3e. It had Siliceous lime at 3,222½-47½ feet, total depth, and flowed 2,998 bbls. of oil in 24 hours.

Gulf Oil Corp. No. 2 Cairns, SE NW SW section 21-32-5, had a hole full of water at 3,132 feet, total depth, and was dry and abandoned.

Greenwood County

Houston-Oklahoma Oil Co. No. 6 Berry, SW NE SW section 28-23-13, North Virgil area, Greenwood County, pumped 150 bbls. of oil in 24 hours after acidizing at 1,760 feet, total depth.

Lyke and others No. 5 Davis, NE SE SE section 6-24-12, was dry and abandoned at 1,850 feet, total depth.

Coffey County

Gillespie & Sons No. 1 Shotwell, SE SW SE section 14-23-14, Van Noy sector, Coffey County, had Burgess sand at 1,594 feet. total depth 1,639 feet, was acidized and pumped 20 bbls. of oil daily.

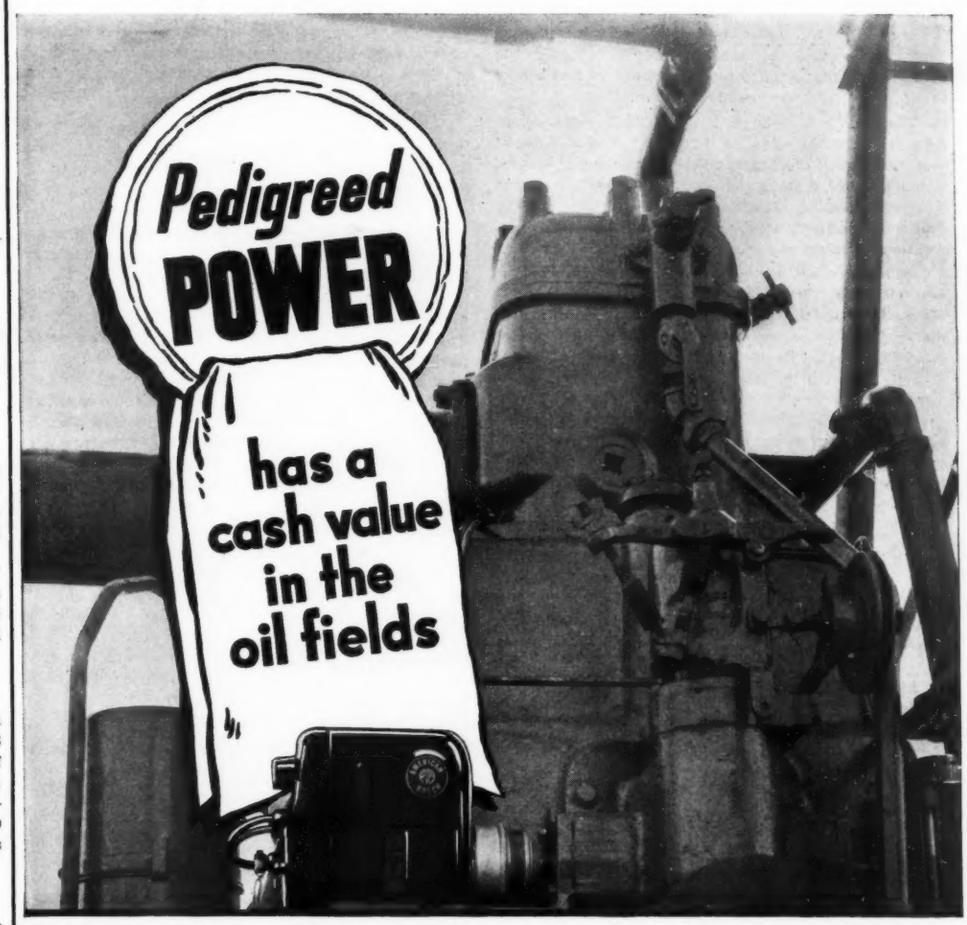
Woodson County

Chris L. Sheedy and others No. 2 College, SW NE SE section 28-25-14, Batesville sector, Woodson County, found Bartlesville sand at 1,438 feet, total depth 1,495 feet, was shot and pumped 50 bbls. of oil daily.

Woodson County Pipe Line Co. No. 1 Hunsicker, SE cor. section 14-24-13, had pay at 1,650-70 feet, total depth, and pumped 25 bbls. of oil daily.

Five failures were recorded in Woodson County, as follows: Henderson Oil Co. No. 5 Vostrez, SW SE NE section 23-23-14, total depth 1,671 feet; Ward McGinnis No. 5 Wiede, NW NE SE section 31-23-15, total depth 1,576 feet; Woodson County Production Co. No. 15 Rhea, SW SE NE section 13-24-13, total depth 1,700 feet; Kelly and others No. 1-A Mason, SE SE NE section 14-25-13, total depth 1,440 feet, and Urschell and others No. 1-A

(Continued on Page 85)



NO where in heavy industry are shut-downs as costly as in the oil field. Now the pedigreed American-Bosch—the Super-Powered Magneto—gives greater protection than ever against sudden shut-downs; greater assurance of top operating efficiency.

Over half a century of engineering leadership has gone into the evolution of the American-Bosch Magneto. Thus its pedigree means as much to your peace-of-mind as its greater electrical energy. This pedigree means as much to your pocketbook as its wider speed range, its increased stamina, its unique simplified construction (dustproof, waterproof, winterproof, tropic-proof).

For its unparalleled pedigree—*above all else*—is your assurance that the American-Bosch Magneto will save you time, worry and expense. This is your yardstick of true magneto economy. Write for interesting booklet.

UNITED AMERICAN BOSCH CORPORATION
SPRINGFIELD, MASS. NEW YORK CHICAGO DETROIT

AMERICAN-BOSCH
Super POWERED MAGNETO

Texas and Louisiana Gulf

LOUISIANA TESTS SHOW OIL; BIG PLAY IN HARRIS COUNTY

By
F. L. SINGLETON

HOUSTON, Tex., July 19.—The possible pool opener of Amerada Petroleum Corp. and Louisiana Land & Exploration Co. No. 1 State, on the Pine Island Prospect, St. Charles Parish, Coastal Louisiana, proved the structure a deep-seated salt dome when salt was encountered at 8,632 feet and cored to a total depth of 8,638 feet. At this point an Eastman survey for directional purpose and a Schlumberger survey is being made and the hole is scheduled to be deepened 70 feet before it is plugged back for a production test.

The well, which is on a large block centering in section 13-15s-20e, cored 13 feet of oil sand at 6,820-33 feet. Following the running of a Schlumberger survey, which showed 8 ohms resistivity, a protection string of 9⅝-inch casing was cemented at 7,118 feet, and the hole was being deepened in search of a second pay when salt was encountered.

On another salt dome structure in Plaquemines Parish, Tide Water Oil Co. was preparing to test No. 3 Manhattan Land & Fruit Co., on the flank of the Venice dome. Twenty-one feet of sand, showing oil, cored at 7,187-7,208 feet, the total depth, showed 40 ohms resistivity and 110 millivolts porosity. The top part of the sand section showed 2.2 per cent saturation and the bottom section showed 8.5 per cent saturation which practically assures the test opening a new field. The well is in section 26-21s-30e, and is the third test drilled by the company. It is 460 feet east of No. 2 Manhattan.

Lockport Field

In the Lockport field, Calcasieu Parish, preparations were being made to test No. 6 Freeberg and Wolf that has the appearance of opening a new deep sand. The hole is bottomed in oil sand at 6,937 feet and 7-inch casing has been cemented at 6,898 feet. Location is in section 9-10s-9w.

Amerada Petroleum Corp. has made location for No. 1 South Coast Corp., a wildcat on a geophysical prospect of several thousand acres in section 34-15s-19e, Lafourche Parish.

Showing in Iberia Parish

On the Jefferson Island salt dome, Iberia Parish, Jefferson Lake Oil Co. No. 414 State, located in Lake Pigneur, is standing cemented with 5-inch casing at 6,686 feet. Sand showing oil was topped last week at 7,060 feet and cored to a total depth of 7,069 feet. The casing was scheduled to be cemented near the top of the sand section, but became stuck at its present depth. This is the second time the well has shown possibilities of opening first production on the structure. It was originally tested at 6,940 feet and flowed considerable oil before salt water intrusion ruined its chances.

Humble Oil & Refining Co. No. 1 Federal Land Bank, North Crowley Prospect, Acadia Parish, is coring in sand below 8,400 feet, after a 10-minute drill stem test at 8,318-53 feet showed 250 pounds of working pressure, 2 thribbles of 35.6 gravity oil and 1 thribble of mud and brackish water. The test is looked upon as a possible pool opener, having tested 125 pounds of pressure and several hundred feet of oil on a drill stem test at 8,086-8,106 feet. Location is in section 34-8s-1e.

On the Chalkey Prospect, Cameron Parish, Humble Oil & Refining Co. No. 1 B. K. Hanzen, section 5-12s-6w, was being watched with interest after encountering an odor of oil and gas in a core cut at 8,635-56 feet. Coring continues below 8,871 feet.

In Jefferson Davis Parish, and on the China Prospect, Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 2-B Calcasieu National Bank is bottomed at 9,100 feet with 7-inch casing cemented at 9,089 feet. The well is west of the companies' No. 1 Calcasieu National Bank, which was abandoned several months ago at 9,139 feet after it blew out after passing through a gas sand topped at 8,965 feet. The casing was cemented as a protection string and the hole will be deepened. While this test looked promising, the chances of opening production at the Fenton Prospect in the same parish was temporarily halted as Louisiana Crusader Oil Co. abandoned No. 1 Langley after testing salt water the third time at 6,540-52 feet. The well was drilled to a depth of 8,965 feet and recorded numerous showings of gas which will no doubt result in future activity. Location is in section 36-7s-5w.

On the Texas Coast

Operators along the Texas Coast were recovering from the fast and furious leasing and royalty buying in the Friendswood area of southern Harris and northeastern Brazoria counties, following the completion last week of Humble Oil & Refining Co. No. 1 J. J. Settegast which has skyrocketed prices to an all-time record for acreage along the Gulf Coast. While there was little acreage available near the discovery, prices paid for leases 2 and 3 miles distant, have assumed production prices. The highest price recorded was paid by Humble Oil & Refining Co., consisted of a cash payment of $5,000 per acre for a 31-acre tract over a mile north, while the same company paid $1,100 per acre cash and $2,500 per acre in oil for the Japanese Nursery tract 2 miles distant, consisting of 106.25 acres in the L. Hemenway Survey. These prices are being paid in the face of several dry holes drilled to the northwest and southwest.

On a 24-hour potential test, the discovery well flowed 640.67 bbls. of 30.1 gravity oil through a quarter-inch choke, with tubing pressure 875 pounds and casing pressure 825 pounds. Gas-oil ratio was 384 to 1. The first location following the completion was made by Glenn H. McCarthy for No. 1 Whitcomb, 1¼ miles southwest in the Thomas Choate Survey.

Hastings Extended

To the southwest across the line in Brazoria County the Hastings field was extended a half mile south by the completion of Stanolind Oil & Gas Co. No. 1-C Moore in the R. A. MaGee Survey. Bottomed in the regular producing horizon at 6,080 feet with 7-inch casing cemented at 5,973 feet, the well flowed 149 bbls. in five and one-half hours through a quarter-inch choke, with tubing and casing pressure equalized at 925 pounds. The completion of this test opens several hundred additional acres for development, and geological markers on the test indicated that production might extend a considerable distance farther south. This field has the thickest producing sand body of any field in the district, which is one reason for the high prices paid for acreage at Friendswood, about 2½ miles to the northeast.

The north extension area of the Heyser field, Victoria County, and the field proper in Calhoun County, were brought close together by Normandie Oil Co. No. 1 J. G. Cook. Gas sand was topped in the regular producing sand at 5,431 feet and oil sand topped at 5,469 feet was cored to a total depth of 5,491 feet. Casing was cemented on bottom and the well is testing through perforated casing. Recent developments indicate a field of major importance and with the completion of another good well in the north extension area, drilling activity is expected to be increased. George Echols No. 5 Bennett, J. E. Galban Survey, perforated casing at 5,750 feet and flowed 8½ bbls. per hour through a 9/64-inch choke. Echols is drilling No. 1 O. M. Lander while Magnolia Petroleum Co. has made location for No. 1 Lander, a northwest offset to No. 4 Bennett in the J. E. Galban Survey.

Two and one-half miles southwest of the Seabreeze field, Chambers County, Sun Oil Co. has cemented 9⅝-inch casing at 8,535 feet in No. 1 Felix Jackson, which is expected to be drilled deeper after going through a sand section that carried gas at 8,531 feet. At Cotton Lake, Salt Dome Oil Corp. and Gulf Oil Corp. No. 1 A. B. Lawrence, B. Winfree Survey, made a Schlumberger survey at 6,622 feet, and casing is being run for a production test after plugging back to 6,515 feet. Sand showing oil was topped at 6,505 feet.

Hull's Deep Sand

A second deep sand producer was completed in the old Hull field, Liberty County, Texas Co. No. 7 Hannah fee, in the J. Devore Survey. Bottomed at 5,477 feet with 7-inch casing cemented at 5,187 feet, it flowed 31 bbls. of pipe line oil per hour through a quarter-inch choke.

In the southeast extension area of the Segno field, Polk County, Humble Oil & Refining Co. No. 5-B Kirby Lumber Co. has been abandoned after testing salt water on a drill stem test at 5,327-42 feet, the total depth. It is only 933 feet northeast of No. 3-B Kirby, a producer, and is the first dry hole to be recorded in this part of the field. No. 6-B Kirby, midway between Nos. 3 and 4 is being rigged up. In the field proper, Laquinta Oil Co. No. 3 Wing, drilled to a total depth of 5,274 feet, and is preparing to test through perforated casing at 5,177-90 feet.

As a result of the recent deep sand discovery on the north flank of the West Columbia field, Brazoria County, Sterling Oil & Refining Co. and Texas Co. have spudded No. 2 J. G. Phillips while Texas Co. is drilling No. 16 Abrams, both being located in the George

California Fields

(Continued from Page 66)

tial increase in production since being completed last week. This well, which was completed flowing 1,104 bbls. of 34.9-gravity oil and 12,000,000 feet of gas per day from 6,860 feet, subsequently built up to 1,265 bbls. of 37.9-gravity oil and 20,800,000 feet of gas before being beaned back to its present production, 744 bbls. of crude oil and 7,500,000 feet of gas. In the Gato Ridge field of Santa Barbara County the O. C. Field Gasoline Co. has completed No. 2 Continental in section 4-8-32 pumping 589 bbls. of 14.5-gravity oil per day from 3,714 feet. This new well was finished with an 8⅝-inch liner carrying 550 feet of perforated.

Los Angeles Basin

In the Playa Del Rey field of Los Angeles Basin Union Oil Co. completed No. 18 Del Rey flowing 199 bbls. of clean 23.8-gravity oil per day from 6,042 feet. This company is the only operator doing any drilling at Playa Del Rey as most of the other productive acreage has already been developed. Sharby Oil Co. which drilled a dry hole out on the north flank of the Del Rey structure several months ago is completing arrangements to drill a second well.

In the Long Beach field, Richfield Oil Corp. recompleted No. 4-A Booth after cleaning out the hole to bottom, 3,588 feet, and returned it to production pumping 71 bbls. of 23.1-gravity oil daily.

In the East Coyote field Bartholomae Oil Co. has completed No. 4 Stern and this new well was brought in pumping 220 bbls. of 21.4-gravity oil per day from 5,056 feet. Production failed to clean up, however, and the company is making preparations to run a water witch.

RED BALL CUTTING SERVICE

15 YEARS

doing one job well

hasn't made us perfect, but has given us undisputed leadership in the field of recovering pipe. You're out of trouble quicker and at less cost when you call the RED BALL SERVICE.

J. Abercrombie Co.
21st FLOOR GULF BLDG.
HOUSTON - TEXAS

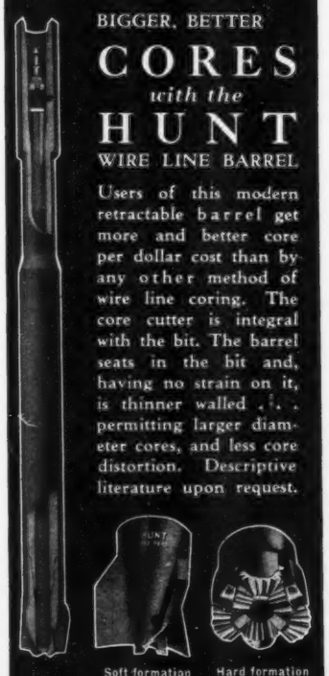
Standco
NO-SMOKE

USE STANDCO BRAKE LINING for the easiest brake known. It "feeds off" evenly. Standco never scores brake rims. See page 1636, Composite Catalog.

STANDARD BRAKE LINING CO.

BIGGER, BETTER
CORES
with the
HUNT
WIRE LINE BARREL

Users of this modern retractable barrel get more and better core per dollar cost than by any other method of wire line coring. The core cutter is integral with the bit. The barrel seats in the bit and, having no strain on it, is thinner walled ... permitting larger diameter cores, and less core distortion. Descriptive literature upon request.



Soft formation core head

Hard formation core head

HUNT TOOL COMPANY
HOUSTON, TEX.
Formerly AUTHORIZED APPLEMAN BIT SERVICE CO.
HUNT WIRE LINE CORE BARRELS

BIT SERVICE SHOPS:
Houston, Jonesville, Talco, Corpus Christi, Bay City, Alvin, Texas ... Rodessa, Jennings, Houma, Louisiana.

Among Gulf Coast Drilling Contractors

Ben (Bud) Coyle, who for the past year and a half has been developing the Jeanerette field in St. Mary Parish, Louisiana, for the Herton Oil, received a contract and is moving in a rig for No. 2 Lutcher Moore Lumber Co., located on the North Starks Prospect in Calcasieu Parish. Contract was let by D. Davenport, who has approximately 7,200 acres in the immediate area. The prospect is attractive due to the first test which recorded numerous gas sands that finally resulted in the test being abandoned, due to a stuck drill stem. The rig is being moved from the Jeanerette field, where Mr. Coyle continues drilling operations with two rigs.

O. W. Dyer reports six drilling operations, all for Atlantic Refining Co. In the McCampbell field, Aransas County, No. 1 Schrivner is coring for the deep sand below 7,080 feet; No. 3 McCullough has been completed in the 7,100-foot sand and the rig is being moved over for No. 1-B Guaranty, while No. 3-C McCampbell, which failed to find production in the 6,500-foot sand, is being deepened for the 7,100-foot sand. One rotary is located on the LaBlanca structure in Hidalgo County, while along the Upper Gulf Coast two outfits are located in the Magnet and Dickinson fields.

H. J. DeArman has abandoned H. B. Hebert and Smith wildcat in Jefferson County and contract has been received for another test. The location will be reported next week. At Sandy Point, for Stanolind Oil & Gas Co., No. 1 Fite is drilling below 5,000 feet.

Cron & Gracey received contract from the Ohio Oil Co. for No. 1 Kempner, a wildcat located on the Chocolate Bayou Prospect, Brazoria County, in the H.T.&B. Survey No. 33. The wildcat at Port Aransas being drilled for the Barnsdall Oil Co. is below 9,200 feet and is said to have cored favorable looking sands at higher levels. Operations continue at Hackberry, Lake Long, South Houston, Hastings and Flour Bluff for Stanolind Oil & Gas Co., Humble Oil & Refining Co. and the Fohs Oil Co.

George Echols, who extended and opened a deep sand for the Heyser field in Calhoun County, completed No. 5 Bennett for an initial production of 8½ bbls. per hour through a 9/64-inch choke. Production was obtained in the 5,700-foot sand. The rig has been moved for No. 1 Lander. Other activity is being carried on in the Gillis field and Marion County for the Fohs Oil Co.

Glenn H. McCarthy is moving in a rig for an important test in the recently opened Friendswood area, southern Harris County, which will be drilled for himself on the Whitcomb lease, about 1½ miles south of the discovery well, completed by the Humble Oil & Refining Co. He has four rigs operating at Palacios in Matagorda County, three for himself and one for Sun Oil Co. The latter test is below 8,000 feet and is reported to have passed through sand sections showing gas. At Amelia he is completing No. 3-B Longe and has a rig running for Humble Oil & Refining Co.

Rowan Drilling Co. was scheduled to make a production test of Tide Water Oil Co. No. 3 Manhattan Fruit Co. at Venice dome in Plaquemines Parish, Coastal Louisiana. The hole is bottomed in 21 feet of oil sand at 7,208 feet which has shown good porosity and resistivity on a Schlumberger survey. Two rotaries are located at Amelia for Humble Oil & Refining Co., while at Danbury No. 1 Jameson is drilling below 1,700 feet, and at Fairbanks for Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1 Wright is drilling below 2,000 feet.

Patrick & Tyrell of Oklahoma City received contract from the Louisiana Crusader Oil Co. for an interesting deep test to be drilled on the east flank of the Edgerly field in Calcasieu Parish. Their large diesel-electric rig used in drilling the same company's No. 1 Langley, recently abandoned in Jefferson Davis Parish, will be moved to the proposed location on the C. Miller Estate tract composed of about 600 acres.

Jordan Drilling Co., which opened the southeast extension area of the Segno field, Polk County, for Humble Oil & Refining Co. has abandoned Humble's No. 5-B Kirby, northwest of production, and received contract for No. 6-B Kirby, midway between Nos. 3 and 4 Kirby.

Reported new locations the past week showed a decline, as only 19 were made. Three of these were important wildcats to be drilled in Brazoria and Liberty counties. In the East Bonney area, Brazoria County, Jack Frazier staked No. 1 Temple Lumber Co. in the H.T.&B. Survey No. 25, while in Liberty County O. C. Garvey and others No. 1 J. H. Weaver is located in the Thomas Devers Survey, northwest of the Cleveland field, and J. G. Mayo and others No. 1 Gibbs Lumber Co. is located in the J. D. Martinez Survey and is ready to be spudded.

There were three interesting wildcat locations made. In the East Bonney area, Brazoria County, Jack Frazier No. 1 Temple Lumber Co. is in the H.&T.B. Survey No. 25, while in Liberty County O. C. Garvey and others have staked No. 1 J. H. Weaver in the Thomas Devers Survey, northwest of the Cleveland field. In the same county and on the Isaiah Fields Prospect, J. G. Mayo and others are rigging up No. 1 Gibbs Brothers Lumber Co., in the J. D. Martinez Survey.

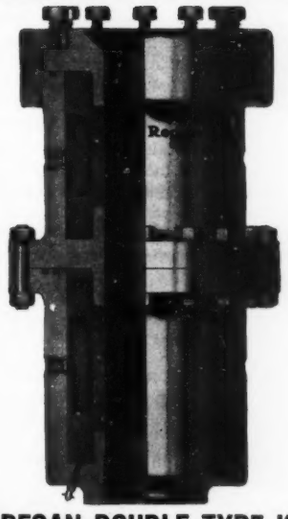
REED'S
'B-R'
DRILLING BIT WITH
WIRE LINE RETRACTABLE
CORE BARREL

ANY NUMBER OF CORES CAN BE TAKEN (REGARDLESS OF DEPTH) WITHOUT REMOVING THE DRILL PIPE

REED 'B-R'
Drill Collar and 3-Blade Drilling Bit with Core Barrel in position

HARD FORMATION HEAD
(INTERCHANGEABLE WITH SOFT FORMATION HEAD)

REED
ROLLER BIT CO.



REGAN DOUBLE TYPE K BLOWOUT PREVENTER

To allow free passage for drilling bits, fishing tools and other devices, the Regan Type K Blowout Preventer permits the full opening of the casing to be maintained through the pack-off unit. When properly applied it can be used to effect a complete shut-off when tools are out of the hole. Pressures from 1,000 to 3,000 lbs. Made in either single or double units. For running in and out of hole under pressure control. Ask for Bulletin.

Regan
Forge & Engineering Co.

Plant and General Offices
San Pedro, Cal.
P. O. Box 150

Mid-Continent Office—1502 Maury St., Houston. Okla.—Mid-Co Tool & Supply Co., Okla. City. Kansas Rep.—Bovaird Supply Co., Wichita. N. Y. C. Office—17 Battery, G. R. Woods, Mgr.

East and East Central Texas

SECOND TEST NOW DUE MAY TELL THE FATE OF OPELIKA

By L. E. BREDBERG

DALLAS, Tex., July 19.—The second test in the Opelika area in the northeastern part of Henderson County is due to core the Glen Rose (Trinity) pay horizon this week. It is the most interesting test in eastern Texas. The Tide Water Associated Oil Co., Seaboard Oil Corp. and Humble Oil & Refining Co. are drilling this test on the McElreath & Suggett lands, in the W. P. Wyche Survey, a southwest offset to the first test drilled on the same lands. That test is flowing about 9 bbls. per day through three small holes in rock bit and through drill stem, which was cemented at 7,160 feet in the hole when it stuck at that point and could not be pulled. Total depth of the first hole is 7,195 feet and the pay was picked up at 7,185 feet.

The second test is now around 7,000 feet, coring ahead with something to be known within the next 175 feet. If it proves a producer others holding acreage adjacent to the block held by the three jointly operating companies are expected to make locations. The Pure Oil Co. is one of these, holding a lease adjoining the discovery lease.

This is the first Glen Rose oil field opened in the East Texas district, and has already been termed the Opelika field. There are two Paluxy sand fields now producing in eastern Texas, the Talco field in northwestern Titus and northeastern Franklin County, and the Sulphur Bluff field in Hopkins County. There are two Glen Rose gas-distillate producers in the Cayuga field in northwestern Anderson County, and Roeser-Pendleton, Inc. may be able to make a small commercial oil producer from the Glen Rose in its No. 1 Bowyer, which it is now trying to complete in the E. Ritter Survey on the west edge of the field. It looks good for 20 bbls. per day on gas or air lift.

Abandonments

Two Trinity tests were abandoned to add more discouragement to those seeking deep production in the district. The Magnolia Petroleum Co. abandoned its No. 2 J. A. Chapman, in the George Dyer Survey, on the east edge of the Talco field, Titus County, at a total depth of 5,608 feet, after plugging back from 5,661 feet and acidizing with 2,900 gallons. This was the second Trinity test, drilled to the Glen Rose, on that side of the field. A deep test is expected to be drilled in the western part of the field, on the Franklin County side.

Humble Oil & Refining Co. abandoned No. 2 L. K. Riggs, W. Daniels Survey, on the northwest flank of the Van field in Van Zandt County, at a total depth of 6,325 feet. Elevation is 462 feet. This is the second Glen Rose test drilled on this side of the field, and one such failure has been drilled on the northwest flank of the field. The company is now moving this heavy rig to a location on its large block southwest of Longview and on the eastern flank of the East Texas field, Gregg County, where it is expected to drill a Trinity sand test in conjunction with the Gulf Oil Corp.

Grapeland Gasser

American Liberty Oil Co. has completed its third gas producer northwest of Grapeland in the northern part of Houston County, this new well extended the gas area another half mile to the northwest on the W. L. Moody farm, about 1½ miles northwest of the town. It topped the gas sand at 5,988 feet and was bottomed at 6,169 feet. Initial production is reported as 40,000,000 feet of gas per day. It is located in the S. E. Parker Survey. American Liberty Oil Co. opened this area last year.

Test for Rusk

Another Trinity test is expected to get under way in the southeastern part of Rusk County in the Mount Enterprise area where the Pure Oil Co. abandoned its No. 1 Faulkner, in the W. Elliott Survey last year, at a total depth of 7,799 feet. The new location is expected to be made between the Pure test and the test now drilling by the Barnett Petroleum Corp. on the Mrs. S. C. Sanford lands in the W. A. Corder Survey, about 10 miles southeast of the Pure test. The Barnett test is now down 6,000 feet, drilling.

Freestone Test

Holt and others are planning to drill at 5,200-foot test on the W. H. Chambers lands in the W. D. Allison Survey, nearly 3 miles north of Keechi in Freestone County, having already obtained permit for the test. A block of 6,000 acres is held in the area surrounding the location and Shell, Sinclair Prairie and Magnolia companies hold considerable acreage in the area. J. C. Cook has contract to drill the test which will be about 3 miles south from the gas-distillate well on the Red Lake structure about 3 miles south of Turlington. It is also about 3½ miles north of a Shell block in Leon County.

Other Wildcats

M. Hays and others have made location for a test on the Mrs. J. J. Hodges lands, in the N. K. Robinson Survey, 5 miles southwest of Lott in Falls County and are now moving in rigs on same.

In Nacogdoches County, Collier & Corley are to drill a test on the A. T. Mast lands 14 miles southwest of Nacogdoches and in the T. J. Lambert Survey. Location is 750 feet north of their No. 1 which recently was abandoned. Material is now being moved in on the second location.

Navarro County is to see an old test carried deeper when Mues & Low drill No. 1 C. Berry, in the W. H. Moss Survey, 1 mile north of Dawson, from the old total depth of 1,490 feet. The test was formerly drilled by McCullough and others. The new operators are now rigging up.

East Texas Field

Locations in the East Texas field jumped to 79 this week, whereas they have been running around 35 per week. At the same time 58 wells were completed in the field. These records are higher than companies expected to show this year, it being the general belief that drilling was to slump to around 20 or 25 completions per week, with about that number of locations to be reported. There will be at least 25,000 wells drilled in the field. There are now over 23,100 wells producing.

EAST CENTRAL TEXAS COMPLETIONS

Anderson County

F.H.E. Oil Co. No. 1 Pessoney, 5,441-66 ft., 51 bbls. through 5/64-inch choke. Hunt Oil Co. No. 1 Tucker, 5,386-96 feet, 40,000,000 feet of gas. Tide Water and Seaboard Oil Corp. No. 1 Cooker & Ross, 5,287-5,314 feet, 94 bbls. through 7/64-inch choke; No. 1 Reeves, 5,256-88 feet, 30 bbls. through one-eighth inch choke; No. 15 Ware, 4,067-95 feet, 135 bbls. through one-third inch choke.

Angelina County

B. F. Hoffman No. 1 Southern Pine Lumber Co., dry and abandoned 2,247 feet.

Freestone County

Pansy Oil Co. No. 1 R. B. Longbotham, NW part of Wortham, dry and abandoned 2,200 feet.

Henderson County

F. M. Allison Production Co. No. 6 Pettiette, 4,069-91 feet, 180 bbls. through one-eighth inch choke. Roeser-Pendleton, Inc., No. 6 Wathen, 4,071-4,100 feet, 177 bbls. through one-eighth inch choke. Sun Oil Co. No. 2 Watkins, 4,095-4,120 feet, 114 bbls. through one-eighth inch choke.

Hopkins County

Goldston and others No. 18 4,480-4,515 feet, 273 bbls. through one-fourth inch choke.

Houston County

American Liberty Oil Co. No. 1 W. L. Moody, 1½ miles NW Grapeland, 5,988-6,169 feet, 40,000,000 feet of gas.

Titus County

Adams & Lyle No. 13 Davis, 4,254-4,320 feet, 162 bbls. on pump; No. 2 Milligan, 4,197-4,344 feet, 136 bbls. Ajo Oil Co. No. 1 Dean, 4,252-85 feet, 176 bbls. on pump, with some water. B. G. Byars and others No. 2-C Edwards, 4,284-4,310 feet, 197 bbls. on pump. Byrd & Frost No. 7 Hargrove, 4,128-4,240 feet, 391 bbls. on pump. G. M. & W. Production Co. No. 3-32 Talco Townsite, 4,216-4,320 feet, 111 bbls. on pump. Humble Oil & Refining Co. No. 2 Stevenson, 4,210-4,317 feet, 30 bbls. on pump; No. 3 Williams, 4,228-4,322 feet, 174 bbls. on pump. Lucey Petroleum Co. No. 2 Williams, 4,226-84 feet, 427 bbls. on pump. Magnolia Petroleum Co. No. 2 Chapman, dry and abandoned 5,608 feet.

Van Zandt County

Humble Oil & Refining Co. No. 2 L. K. Riggs, dry and abandoned 6,325 feet, elevation 462 feet.

EAST TEXAS COMPLETIONS

Gregg County

Atlantic Refining Co. No. 77 Moore, 3,508-3,635 feet, 90 bbls. per hour. Atlantic and Sun No. 9-B Barnwell, 3,468-3,550 feet, 144 bbls. per hour. Empire Oil & Refining Co. No. 17 Aiken, 3,520-98 feet, 13 bbls. in 15 minutes; No. 17 Bumpas, 3,485-3,550 feet, 40 bbls. in 90 minutes; No. 24 Jeter, 3,562-85 feet, 12 bbls. in 15 minutes. Fain & McGaha No. 12 Clements, 3,601-37 feet, 18 bbls. in 15 minutes. Gulf Oil Corp No. 48 Shepperd, 3,481-95 feet, 47 bbls. per hour. Humble Oil & Refining Co. No. 11 McFarland, 3,611-40 feet, 21 bbls. in 35 minutes. Magnolia Petroleum Co. No. 30 Everett, 3,666-67 feet, 98 bbls. per hour; No. 24 White, 3,531-47 feet, 112 bbls. per hour., Petroleum Corp. of Venezuela No. 7 Jones, 3,582-3,610 feet, 65 bbls. per hour. Snowden & McSweeney No. 13 Bonner, 3,634-48 feet, 30 bbls. in 30 minutes. Sun Oil Co. No. 12 Thomas 3,457-3,564 feet, 25 bbls. in 30 minutes. The Texas Co. No. 15 Woods, 3,591-93 feet, 27 bbls. in 30 minutes. Tide Water Associated No. 4 Everett & Co. 3,490-3,504 feet, 10 bbls. in 10 minutes. Adams & Lyle No. 13 Howard, 3,627-37 feet, 38 bbls. in 30 minutes. Arcadia Refining Co. No. 17 Samples, junked and abandoned 3,480 feet. Atlantic Refining Co. No. 6 Smith, 3,662-3,765 feet, 68 bbls. per hour. L. E. Dodwell No. 3 Alexander, 3,519-53 feet, 30 bbls. per hour. Flanagan Production Co. No. 17 Walker, 3,565-74 feet, 25 bbls. in 30 minutes. General American Oil Co. No. 3 Johnson, 3,545-57 feet, 20 bbls. in 30 minutes. L. Glasscock No. 9-B Duncan, 3,591-94 feet, 25 bbls. per hour. Grace Oil Co. No. 3 Hughey, 3,520-38 feet, 20 bbls. in four hours on pump.

E. J. Grey No. 1 Karton & Dickson, 3,553-85 feet, 22 bbls. per hour. Texola Drilling Co. No. 4 Benson, 3,658-59 feet, 30 bbls. per hour. E. Pace No. 3 Elder, 3,535-57 feet, 40 bbls. per hour. J. W. Russell No. 5 Lacey, 3,491-3,535 feet, 5 bbls. per day on pump. Salmon Oil Co. No. 7 Smith, 3,542-57 feet, 32 bbls. in 45 minutes. Shell Petroleum Corp. No. 65 Watson, 3,571-3,641 feet, 37 bbls. in 30 minutes. Sinclair Prairie Oil Co. No. 21-B King, 3,468-94 feet, 20 bbls. in 15

(Continued on Page 85)

West and North Texas

By L. E. BREDBERG

AVOCA POOL DEEP DISCOVERY ESTIMATED AT 10,000 BARRELS

FORT WORTH, Tex., July 19.—Two more wildcat tests are showing for Permian pool openers in the northern part of the West Texas district, a sector which has been gaining in interest and importance since the southeastern Yoakum County discovery 1½ years ago and the southeastern Cochran and southwestern Hockley discoveries last year, and the more recent discovery of Amon Carter and Continental Oil Co. in northwestern Gaines County about a month ago.

Andrews and Gaines are the two counties which now appear destined to receive two more producing areas with the drilling of a wildcat in the northwestern part of Gaines County by the Continental Oil Co., and the drilling in Andrews County of a wildcat by the Amerada Petroleum Corp.

The Andrews County test has been swabbing 58 bbls. of fluid per day, 9 per cent of which was water. It is located 660 feet from the north and west lines of section 6, Block A-29, P.S.L. Survey, on the Lydia Littman ranch, near the Texas-New Mexico state line and about 2 miles east of the Brown & Reynolds discovery, No. 1 Purcell in eastern Lea County. The Amerada test is now shut down at 4,365 feet after acidizing and swabbing, but is to be carried deeper. A total of 3,000 gallons of acid was used in treating the well, one dose of 1,000 gallons and a second of 2,000 gallons.

Another wildcat drilling in the northwestern part of Andrews County is appearing as a dry hole at the present writing, since drilling to 5,010 feet and encountering salty sulfur water. This test, Empire Oil & Refining Co. No. 1 Biles, is in section 12, Block A-31, P.S.L. Survey, 7 miles east and a little south of the Amerada-Littman test. It was cemented back to 4,675 feet with 75 sacks of cement with the intentions of shooting or acidizing upper saturated streaks which showed some oil and bleeding cores.

Gaines Showing

About 9 miles west by south of the recent discovery of Amon Carter and others on the Wasson lands in the northwestern part of Gaines County, the Continental Oil Co. No. 1 E. H. Jones shut down at 4,956 feet to run tubing and test after coring saturated lime. It was swabbed between three and four hours, recovering 200 bbls. of fluid, with no gas. The formation drilled was soft lime, and the showing already made is encouraging. It is near 3¾ miles east of the Texas-New Mexico line, and may open another bi-state pool.

Another semiwildcat location was staked in the northern part of Gaines County, Amerada Petroleum Corporation No. 1 R. A. Cox and others, northwest corner of section 380, Block G, C.C.S.D.&R.G.N.G. Survey, about three-quarters of a mile south of the Wasson discovery in section 48, Block AX.

Disappointments

In the Seminole area Amerada Petroleum Corp. No. 1 Fasken, in section 160, Block G, W.T.R.R. Survey, about 4 miles southeast of the Seminole pool near the center of Gaines County, is another test appearing disappointing. It is now below 5,155 feet, logging no oil or gas showings. In the extreme southwest corner of the county, Blevins & Sloan No. 1 Barber, northeast corner of section 19, Block A-28, P.S.L. Survey, has been abandoned at a total depth of 4,759 feet after striking sulfur water at 4,740-50 feet.

Extension in Howard

Moore Brothers of Midland are extending the old Harding pool, in which two small wells have been producing for six years, in the southwestern part of Howard County. No. 1 J. B. Harding, located 2,310 feet from the north and 330 feet from the west lines of section 19, Block 33, Township 1s, T.&P. Survey, is making a pumping test after swabbing 3 bbls. of oil per hour following a 2,000-gallon acid treatment. Total depth is 3,454 feet. The first oil was struck at 3,184 feet, with increases being picked up below that depth.

Ector Extension

The Foster or Odessa field in the eastern part of Ector County was given a mile southeastern extension when York & Harper and others No. 1 Bagley, southwest corner of section 17, Block 42, Township 2s, T.&P. Survey, topped pay at 4,260-80 feet, logging an increase at 4,304 feet, shutting down at 4,320 feet to test. The hole filled with oil.

The Harper pool was extended by Shell Petroleum Corp. No. 2 Cowden, in section 26, Block 44, Township 2s, T.&P. Survey. The well flowed 335 bbls. of oil in 24 hours at a total depth of 4,256 feet after a shot of 480 quarts of nitroglycerin at 4,110-4,230 feet.

10,000-Bbl. Well

The most recent Jones County discovery, Iron Mountain Oil Co. and Humble Oil & Refining Co. No. 1 C. A. Olander, in section 196, B.B.B.&C.R.R. Survey, 3 miles east of Avoca in the northeastern part of the county, is estimated to be good for 10,000 bbls. a day if produced wide open. It was tested through a three-quarters inch choke on 2½-inch tubing, and flowed 1,457 bbls. of oil in a 12-hour potential test, filling the storage on the lease. It topped the Canyon lime pay at 3,244 feet and was bottomed at 3,250 feet, a 3,000-gallon acid treatment no doubt resulting in the heavy flow.

Fain-McGaha, Inc., of Wichita Falls made a deal with Sinclair Prairie Oil Co., selling a half interest in 730 acres for a reported consideration of $50,000. This acreage is in sections 191, 190 and 172, with a test to be drilled in section 190. Jones & Stasney, who assembled the block for the Iron Mountain tests also disposed of three 80-acre tracts for a reported consideration of $84,000, part cash and part oil, and the Danciger Oil & Refining Co. purchased two 80-acre tracts for $48,000 near the discovery.

West of Avoca, Fain-McGaha, Inc., have taken a block of 4,000 acres on which a test is expected to get under way immediately. Mead and others are preparing to start up on their No. 1 Caton, about 4 miles south of Avoca and Southern Oil Corporation is starting a test about 8 or 9 miles to the north of the discovery near the Haskell County line.

Tom Green Block

The Plymouth Oil Co. has acquired a block in the southeastern corner of Tom Green County, near the Concho and Schleicher County lines. About 14,160 acres are included in the block, which falls mostly in Block 25, H.&T.C. Survey, Phillips Arnold Survey No. 1, J. C. Payne No. 1 and other adjacent surveys.

Fisher Test

George J. Greer of Dallas has taken a block of some 1,500 acres centering around Slyvester in Fisher County, and is expected to spud by August 15. The block was taken as a result of geophysical findings in the area.

Dickens Test

About 5 miles north and 2 miles west of Spur, and about midway between Spur and the town of Dickens, a wildcat is being put down by the J. F. Morrissey Co. on the Litchfield-Coms Harris ranch in Dickens County. C. P. Morris & Son have contract to sink the test to 5,000 feet.

WEST CENTRAL AND NORTH TEXAS

Eastland County

In Eastland County, about 1½ miles southeast of the town of Eastland, Barnett Petroleum Corp. is about to drill in its second producer on the L. C. Downtain farm in section 2, Block 6, E.T.R.R. Survey. The discovery was recently completed making 35 bbls. per day flowing from sand topped at 1,456 feet, pay was topped at 1,481 feet, total depth 1,494 feet. It is to be placed on the pump to increase its production of 41.4 gravity oil. The second test is 450 feet north and west of the discovery. The company holds a 994-acre block surrounding the discovery which is north of two old gas wells brought in from the Strawn sand in 1921, but which were never produced.

Bryson Extension

Hill & Hill of Fort Worth extended the Bryson field in Jack County another 1½ miles to the east in No. 1 W. O. Hickman, in the T. M. League Survey. The well topped the pay at 3,085 feet, drilling 15 feet into the sand to shut down and complete, a gauge not having been reported as yet.

Another sand pool for Jack County was in the making when G. M. Gillespie and others No. 1 Oliver, located in section 3,345, T.E.&L. Survey, 2½ miles southeast of Jermyn and about 1½ miles north of a recent northern extension to the Bryson field, showed for a 150-bbl. well from sand topped at 3,171 feet. It was drilled 3 feet into the pay before shutting down to run tubing and test.

New Coleman Pool

The Anzac Oil Corp. (Monroe Chaney) of Coleman, opened a pool on the Morris ranch 1 mile northwest of Echo in Coleman County, in the R. Rodriguez Survey No. 266. After shooting the well with 40 quarts in sand from 1,995 feet to total depth of 2,002 feet, it flowed 150 bbls. of 36-gravity oil in 24 hours.

South Bend Area

One and one-half miles southwest of the old South Bend field in southern Young County, Hickok & Reynolds No. 1 Mrs. N. P. Martin, located in the H. V. Twillinger Survey, topped the sand pay at 2,103 feet and drilled 5 feet in to complete for an estimated 40 bbls. per day on the pump. This well either opens a new and distinct pool or will prove an extension to the older producing area.

Failure in Jack County

One of the first wildcat failures in Jack County amongst the crop of new starts precipitated by the discovery and development of the Bryson field, is that of the Everts Drilling Co. on the Shown lands, in section 833, T.E.&L. Survey, in the extreme southwestern part of the county. It was given up as a failure at 4,200 feet, missing both the Bryson and Hammond sands, and encountering no showings of oil or gas of consequence.

Archer Wildcat

Three miles north of the town of Megargel in Archer County, a new pool has been added to the county's list of producing areas by M. L. Thweet and others No. 1 T. T. Meade in Block 33, Meade, L. M. Pasture, in the southwestern part of the county. The well logged a sand at 1,456 feet, shutting down 2 feet in the pay to complete for a well estimated good for 100 bbls. per day.

Young County Block

M. L. (Hap) Massingill of Fort Worth, and the McCullough Oil Co. of Tyler, have assembled a block of 1,400 acres in the southeastern part of Young County and are to drill a Strawn sand test 2½ miles north and east of the Kisinger pool. They will seek production in the Kisinger sand, expected around 2,600 feet and the Strawn sand at 3,100 feet. The block is in the M.

...BUT ONLY *after it had pumped every day for more than* 3 YEARS!

Find out how Fluid Packed Pumps reduce DOWN TIME TO THE MINIMUM in wells where severe sand conditions prevail. Write, wire or telephone for complete information, and refer to the Fluid Packed Pump Company Section in your Composite Catalog.

Positive Pull Type Fluid Packed Pump

FLUID PACKED PUMP CO.
BOX 64 • LOS NIETOS, CALIFORNIA • U.S.A.
Mid-Continent and Texas Distribution
FLUID PACKED PUMP CO.—MID-CONTINENT
2 S. E. 29th ST., OKLAHOMA CITY, OKLAHOMA
Gulf Coast Headquarters: 3205 Harrisburg Blvd., Houston, Texas

A MODERN PUMP FOR MODERN CONDITIONS
Protected by Patents No. 1545474, 1545475, 1549175, 1621046; others pending.

NATIONAL AIROIL BURNER COMPANY
ESTABLISHED 1912 INCORPORATED 1917

Manufacturers
Installation
Engineers
Sales - Service

Industrial Oil Burners Gas Burners and Furnace Equipment

NAIROIL Automatic Oil Burners for HOMES APARTMENT HOUSES CHURCHES, STORES FACTORY BUILDINGS OFFICE BUILDINGS

Offices and Salesrooms
1325-27 Girard Avenue

Factory
I. St. & Sedgley Avenue
Philadelphia, Pa.

HAVE YOU

RENEWED YOUR

JOURNAL

SUBSCRIPTION?

Gholson, R. J. Kelley, W. S. Kelley, B. Long and adjacent surveys.

WEST TEXAS COMPLETIONS

Crane County

Edwards and others No. 1 Taylor, 2,036-2,120 feet, 24 bbls. on pump, acidized. Gulf Oil Corp. No. 151 McElroy, 2,865-3,008 feet, shot, 308 bbls.; No. 152 McElroy, 2,775-2,982 feet, shot, 351 bbls.; No. 7 Tubbs, 4,402-20 feet, shot and acidized, 139 bbls.

Ector County

Atlantic Refining Co. No. 3-C Cummins, 4,160-4,255 feet, shot, 200 bbls.; No. 3-A Rumsey, 4,160-4,278 feet, shot, 628 bbls. Bond & Harrison No. 8 Rumsey, 4,165-4,275 feet, acidized, 344 bbls. Continental Oil Co. No. 1-A Wight, 4,455 feet, plugged back to 4,205 feet, acidized, dry and abandoned. Humble Oil & Refining Co. No. 1-B Scharbauer, 4,150-4,260 feet, acidized, 220 bbls. Landreth Oil Corp. No. 5-B Scharbauer, 4,170-4,220 feet, acidized, 718 bbls.; No. 8-C Scharbauer, 4,170-4,235 feet, acidized, 1,202 bbls.; No. 3-E Scharbauer, 4,171-4,205 feet, acidized, 651 bbls.; No. 3-H Scharbauer, 4,127-4,211 feet, acidized, 1,590 bbls. Mid-Continent Petroleum Corp. No. 3 Blakeney, 4,100-4,233 feet, shot, 308 bbls. Tide Water and Phillips Petroleum Co. No. 1 Smith, 4,160-4,325 feet, shot, 902 bbls. Weekley Oil Corp. No. 2 Foster, 4,075-4,218 feet, shot, 618 bbls. Stanolind Oil & Gas Co. No. 1 Smith, 4,160-4,325 feet, shot, 902 bbls.

Glasscock County

Continental Oil Co. No. 36-S Settles, 1,228-63 feet, 424 bbls. on pump. Fleetborn Oil Co. No. 1 Taylor, 2,645-68 feet, acidized, 45 bbls. on pump.

Howard County

Ajax Drilling Co. No. 1 Kloh and others, dry and abandoned, 2,680 feet. Continental Oil Co. No. 7 Kloh, 2,386-2,480 feet, acidized, 906 bbls. on pump. Cecil B. Rains No. 1 Chalk, temporarily abandoned 3,247 feet. Sinclair Prairie Oil Co. No. 3 Jones, 2,715-2,890 feet, shot, 311 bbls.

Menard County

Hagerty & Johnson No. 1 Kothmann, dry and abandoned 1,123 feet, elevation 1,891 feet.

Pecos County

Aero Gas & Refining Co. No. 5 Gregg, 1,403-66 feet, shot, 60 bbls. on pump. Paul Childress, Trustee, No. 17 Smith, dry and abandoned, 398 feet. D. J. Finley and others No. 2 Sinclair Prairie-Iowa Realty Trust, 1,605-44 feet, shot, 3 bbls. Humble Oil & Refining Co. No. 1 Gray, dry and abandoned, 6,238 feet, elevation 3,592 feet, top Delaware lime 5,010 feet, top Delaware sand between 5,050-69 feet. Tex-Mex Petroleum Co. No. 1 McKee, 2,725 feet, junked and abandoned. Pine Rock Oil Co. No. 1 University, dry and abandoned, 1,517 feet. C. E. Wheeler No. 1 Riser, abandoned, 392 feet.

Scurry County

Bristow & Cantrell No. 1 Tomlinson, dry and abandoned, 3,166 feet, elevation 2,275 feet.

Upton County

Cardinal Oil Co. No. 2 Starnes-Fowler, 2,270-90 feet, acidized, 738 bbls. Gulf Oil Corp. No. 153 McElroy, 2,825-2,983 feet, shot, 141 bbls.; No. 6 Rogers, 2,219-63 feet, acidized, 194 bbls. J. K. Hughes No. 1 Hughes, 2,379-84 feet, 482 bbls. on pump. G. J. Smith No. 2 Burleson, 2,084-2,153 feet, acidized, 864 bbls. Snowden & McSweeney No. 6 Hughes, 2,404-09 feet, acidized, 250 bbls. on pump.

Ward County

Amerada Petroleum Corp. No. 7 McDonald, 2,220-2,319 feet, shot, 451 bbls. Black & Hedrick No. 4 White, 2,196-2,230 feet, 38 bbls. F.H.E. Oil Co. No. 7 Green, 2,210-2,460 feet, shot, 808 bbls.; No. 8-C Richter, 2,840-2,962 feet, shot, 4,028 bbls. General Crude Corp. No. 2 Hathaway, 2,558-2,665 feet, shot, 2,000 bbls. Gulf Oil Corp. No. 30 Estes, 2,777-2,940 feet, shot, 1,082 bbls.; No. 35 Estes, 2,483-2,620 feet, shot, 1,325 bbls.; No. 37 Estes, 2,525-2,614 feet, shot, 1,016 bbls.; No. 39 Estes, 2,516-2,660 feet, shot, 2,121 bbls.

Leidecker and others No. 5 Shell-Sloan 2,527-2,630 feet, shot, 225 bbls. Magnolia Petroleum Co. No. 1-55 Sealy, dry and abandoned 3,049 feet, elevation 2,707 feet. Reno Oil Co. No. 9 Bennett, 2,311-2,550 feet, shot, 179 bbls. Standard of Texas No. 40 Gordon, 2,385-2,525 feet, shot, 84 bbls. through 1¼-inch choke. Texas Pacific Coal & Oil Co. No. 19 James, 2,296-2,520 feet,

shot, 964 bbls.; No. 20 James, 2,310-2,522 feet, shot, 343 bbls. through three-quarters inch choke; L. D. Thorne, trustee, No. 5 Beatty, 2,410-50 feet, shot, 93 bbls. Tide Water Associated No. 32 Johnson, 2,540-2,660 feet, shot, 950 bbls.; No. 33 Johnson, 2,546-2,666 feet, shot, 864 bbls.; No. 35 Johnson, 2,535-2,657 feet, shot, 1,253 bbls.

Winkler County

W. D. Ambrose No. 2 McCutcheon, 3,123-3,285 feet, shot, 559 bbls. Emperor Oil Co. No. 4 Hess, 3,030-70 feet, 5,075 bbls. Bert Fields No. 2-B Cowden, 2,820-3,000 feet, shot, 1,802 bbls. Gulf Oil Corp. No. 84 O'Brien, 3,163-85 feet, shot, 144 bbls. on pump. Humble Oil & Refining Co. No. 6-B Colby, 2,745-3,025 feet, shot, 358 bbls.; No. 15-C Colby, 2,800-3,085 feet, shot, 355 bbls. Illinois Oil Co. No. 10-A Central State Bank of Abilene, 2,802-3,097 feet, shot, 1,389 bbls. Magnolia Petroleum Co. No. 91 Walton, 3,176-3,274 feet, shot, 313 bbls. Sinclair Prairie Oil Co. No. 5-C Cummins, 2,841-3,030 feet, shot, 108 bbls. Stanolind and Westbrook No. 6 Hutchins, 2,795-3,030 feet, shot, 1,670,000 feet of gas.

CENTRAL TEXAS COMPLETIONS

Brown County

S. F. Rogers and others No. 1 Davidson, sand 724-29 feet, 1,000,000 feet of gas. Westexas Oil & Refining Co. No. 1 Newton, total depth 1,937 feet, dry and abandoned.

Callahan County

Bowers & Williams No. 1 J. C. McDermott, total depth 675 feet, dry and abandoned. O.K. Operating Co. No. 1 Gary, total depth 903 feet, dry and abandoned.

Eastland County

Barnett Petroleum Corp. No. 1 Downtain, sand 1,465-93 feet, initial production 25 bbls. Discovery.

Jack County

F. W. Bennett No. 11 Emanuel, 3,092-3,130 feet, 1,000,000 feet of gas. Beard & Collier No. 3 Clayton, 2,963-75 feet, 36 bbls. Brazos River Gas Co. No. 8 York, 2,905-37 feet, 97 bbls. Camp Drilling Co. No. 1 Brown, 3,006-21 feet, 40 bbls. Cockburn Oil Co. No. 1 Box, 2,975-3,098 feet, 314 bbls.; No. 1 Clayton A, 2,984-3,060 feet, 397 bbls. C. L. Gannaway No. 1 Lewis, total depth 741 feet, dry and abandoned. R. B. Farris & W. E. Powell No. 1 Thomason, 3,020 feet, dry and abandoned. Hamilton Petroleum Co. No. 4 Rhodes & Kuykendall, 2,936-55 feet, 167 bbls. Taubert & McKee No. 1 Walden, 3,004-15 feet, 40 bbls.

Jones County

Fain & McGaha No. 1 Lewis, 5 miles NE Hawley, 1,925-48 feet, 75 bbls. T. D. Humphrey No. 1 Radford, total depth 2,660 feet, dry and abandoned. Iron Mountain Oil Co. No. 1 Olander, 3 miles NE Avoca; discovery; initial production 2,914 bbls. per day through three-quarter inch choke, gravity 42.1. Lewis Production Co. No. 4 Sayles, sand 1,952-90 feet, 120 bbls. N. H. Martin & Son No. 6 Dorsey C, 2,183-2,208 feet, 20 bbls. oil. Owens-Snebold Oil Corp. No. 1 Herndon, total depth 2,745 feet, dry and abandoned. Ungren & Frazier No. 12 Dorsey C, 2,185-98 feet, 570 bbls.; No. 9 Jennings, 2,053-57 feet, 286 bbls.

Shackelford County

Healey Drilling Co. No. 2 Ackers, total depth 2,283 feet, dry and abandoned. Hunter & Rose No. 1 Davis, 1,506-14 feet, 10 bbls. Roeser & Pendleton No. 36 Dawson & Conway, 1,607-19 feet, 300 bbls. T. K. Simmons No. 13 Harvey, 1,623-40 feet, 128 bbls. Westexas Oil & Refining Co. No. 12 Morris, 1,588-96 feet, 25 bbls.

NORTH TEXAS COMPLETIONS

Archer County

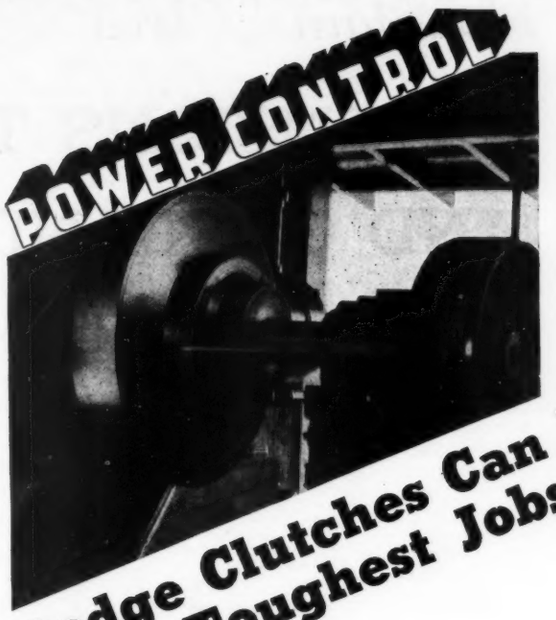
L. T. Burns No. 1 J. H. Turbeville M, 1,115 feet, dry. Duncan & Marchman No. 5 N. I. Andrews, 1,052 feet, dry. H. G. Gay and others No. 1 J. R. Parkey A, 1,801 feet, dry. Goldsmith and others No. 1 Allie D. Weaver, 1,302 feet, dry. S. H. Huggins and others No. 4 J. J. Perkins, 640-50 feet, 7 bbls. R. B. Magee No. 6 W. M. Justice, 1,072-81 feet, 3 bbls. T. Minnich No. 1 Grace Jennings, 451 feet, dry. Peery Woody and others No. 1 W. Duckworth B, 1,415 feet, dry. Underwood & Campbell No. 17 R. Campbell B, 963-75 feet, 10 bbls.

Clay County

H. T. Merrill No. 1 F. H. Gohlke, 348 feet, dry; No.

(Continued on Page 86)

DEPENDABLE



Dodge Clutches Can Handle The Toughest Jobs . . .

Dodge Diamond "D" Friction Clutches are efficiently, dependably, and economically adapted to power transmission as well as for application to various types of machinery used in the oil fields. They are ruggedly constructed and capable of handling 100% overload, insuring safety and protection and positive power control under any conditions of service.

Specify Dodge Diamond "D" Clutches for steady, uninterrupted service. Send for copy of Catalog No. A-200.

See the Dodge 20-page section in the Oil Field Composite Catalog

DODGE MANUFACTURING CORPORATION
MISHAWAKA, INDIANA, U. S. A.

THE Right DRIVE FOR EVERY JOB

DODGE
MISHAWAKA
THERE IS GREATER VALUE IN THE NAME DODGE

J. P. DEVINE
MANUFACTURING CO., Inc.
(Home Office and Plant)
MT. VERNON, ILLINOIS

Petroleum and Chemical Process Equipment

SALES OFFICES

J. P. Devine Mfg. Co.
205 East 42nd St.
New York, N. Y.

J. A. Rossiter Co.,
P. O. Box 1095,
Houston, Texas

The Merrill Company,
343 Sansome Street,
San Francisco, Calif.

Rocky Mountain Area

By
T. R. INGRAM

EXTENSIONS TO HOBBS, N. M., AND GARLAND, WYO., FIELDS

DENVER, Colo., July 19.—Another western Colorado wildcat is expected to be drilled soon on the Beaver Creek dome in Rio Blanco County. Colorado had no completions or new locations.

An extension of Madison lime production nearly 3 miles to the northwest in the Garland field, Park County, Wyoming, is promised in Kinney-Coastal Oil Co. No. 3 Government, which is coring saturation. Continental Oil Co. No. 10 Tom Bell, Minnelusa test in Lance Creek, is circulating in. The Osage field had two dry holes.

In Montana there were one completion and one new operation in the Cut Bank field and two completions and six new operations in the Kevin-Sunburst field. The Kyle test on the Bow and Arrow structure had water and was abandoned.

Mountain Fuel Supply Co. No. 1 Lauzier, Clay Basin, Utah, tested 14,000,000 feet of gas in the Dakota.

NEW MEXICO

Extension of the Hobbs field a short distance to the east at Shell Petroleum Corp. No. 5 Sanger, section 27-18-38, was a feature of the week in Lea County fields. It was acidized at total depth of 4,239 feet and flowed at the rate of 116 bbls. of oil an hour through open tubing to give it a daily rating of 2,788 bbls. It was not a completion.

Completions of the week in Lea County follow: Sun Oil Co. No. 3 Stuart, C NE NE section 15-25-37, topped pay at 3,285 feet, total depth 3,330 feet, was shot and flowed 225 bbls. of oil in 12 hours. Amerada Petroleum Corp. No. 1 Corrigan, SW NW NE section 4-22-37, pay 3,637 feet, total depth 3,750 feet, acidized, flowed 237 bbls. of oil in 17 hours.

Gulf Oil Corp. No. 1 Davis, C NE NE section 8-23-37, pay 3,593 feet, total depth 3,712 feet, plugged back to 3,702 feet, flowed 44 bbls. of oil in 19 hours. Same company's No. 1 Cole State, C SE SE section 16-22-37, pay 3,540 feet, total depth 3,701 feet, flowed 62½ bbls. of oil in 19 hours, with 1,803,000 feet of gas. The company's No. 3 King, C SE NW section 28-21-37, had pay at 3,690 feet, total depth 3,788 feet, flowed 12 bbls. of oil in five hours, 4 per cent basic sediment. Same company's No. 2 McCormack, NW NW NE section 32-21-37, pay 3,635 feet, total depth 3,780 feet, flowed 90 bbls. of oil in 18 hours. Same company's No. 4-F Bell, C NE NW section 36-20-36, pay 3,760 feet, total depth 3,855 feet, flowed 152 bbls. of oil in four hours. The company's No. 1 Shipp, C SE NW section 21-19-37, pay 3,695 feet, total depth 3,975 feet, produced 4,158,000 feet of gas.

Shell Petroleum Corp. No. 1 Rinewalt, SE SE NW section 4-22-37, had pay at 3,630 feet, total depth 3,758 feet, was acidized, flowed 240 bbls. of oil in eight hours. Stanolind Oil & Gas Co. No. 2 McQuatters, C NW NE section 11-21-36, pay 3,749 feet, total depth 3,840 feet, flowed 386 bbls. of oil in 16 hours. Republic Production Co. No. 1 State, C SE SE section 12-21-35, had pay at 3,808-35 feet, total depth 3,900 feet, acidized, flowed 45 bbls. of oil daily, with 2,000,000 feet of gas.

Continental Oil Co. No. 1-A-14 Sanderson, C NE NE section 14-20-36, had pay at 3,870 feet, total depth 3,896 feet, flowed 19 bbls. of oil hourly, with 1,140,000 feet of gas. Bert Fields No. 2 Turner State, SW NE NW section 32-20-37, pay 3,818 feet, total depth 3,840 feet, acidized, flowed 30 bbls. of oil an hour. Shell Petroleum Corp. No. 4-M State, C SE NE section 1-21-35, pay 3,765 feet, total depth 3,865 feet, flowed 145 bbls. of oil in four hours.

One well was completed in Eddy County at Harry Leonard No. 10 State, SE SW SW section 22-17-29. It topped pay at 2,579 feet was bottomed at 2,770 feet and pumped 10 bbls. of oil daily.

Lea County

Amerada Pet. Corp. No. 3 Laughlin, C NW NE sec. 9-20-37. Drlg. 3,810 ft.

Amerada Pet. Corp. No. 4-T State, sec. 25-19-36. T.D. 4,055 ft.; shut in; may acidize.

Anderson-Prichard Oil Corp. No. 1 Wells, C SE SE sec. 5-25-37. Drlg. 3,307 ft.

Anderson-Prichard Oil Corp. No. 1 Gregory, NW sec. 33-25-37. Rig.

Anderson-Prichrd Oil Corp. No. 2 Langlie, SE sec. 8-25-37. Rigging up rotary.

Ajax Drlg. Corp. No. 1 Lanehart, SW sec. 21-25-37. Machine.

Atlantic Ref. Co. No. 1-P State, C SE NW sec. 25-20-36. Derrick.

J. W. Brown No. 1 State, C SW SW sec. 22-21-24. Drlg. 1,570 ft.

Amon G. Carter No. 2 Elliott, C NE SW sec. 22-22-37. T.D. 3,622 ft.; testing.

Continental Oil Co. No. 1 Alles, C SE SE sec. 35-20-38. Drlg. 4,230 ft.

Continental Oil Co. No. 1-A-15 Cline, NW sec. 15-23-37. Wildcat. Drlg. 3,577 ft.

Continental Oil Co. No. 2-A-5 Farney, C NE SE sec. 5-26-36. T.D. 3,796 ft.; P.B. 3,783 ft.

Continental Oil Co. No. 1 Jack, C NW NE sec. 27-34-37. Cellar.

Continental Oil Co. No. 1-A-17 Lockhart, C NW SW sec. 17-21-37. T.D. 3,796 ft.; reacidized.

Continental Oil Co. No. 1-B-30 Lockhart, C SE SW sec. 30-21-36. Rigging up rotary.

Continental Oil Co. No. 2-B-10 Sanderson, NE SE NE sec. 10-20-36. Drlg. 2,536 ft.

Continental Oil Co. No. 1-A-20 State, NE NE SE sec. 20-20-37. Rigging up rotary.

Continental Oil Co. No. 1 State, C SW NW sec. 16-22-36. Drlg. 1,900 ft.

Continental Oil Co. No. 1-E-17 State, C SE SE sec. 17-22-36. T.D. 390 ft.; set csg.

Continental Oil Co. No. 1 Stevens, C SW NW sec. 34-23-36. Drlg. 3,443 ft.

Continental Oil Co. No. 1 Wantz, C SW SW sec. 21-21-37. T.D. 3,872 ft.; installing pump.

Cranfill & Germany No. 1 Weir, C NE NE sec. 15-20-37. T.D. 4,210 ft.; S.D.O.

Culbertson & Irwin No. 1 Boesche, NE sec. 2-21-32. Wildcat. Drlg. 2,095 ft.

Culbertson & Irwin No. 1 Humphreys, NE NW NE sec. 3-25-37. Drlg. 2,550 ft.

Culbertson & Irwin et al No. 1 Moseley, SE NE SW sec. 34-24-37. Drlg. 3,380 ft.

Devonian Oil Co. No. 2 Christmas, SE sec. 28-22-37. Rig.

Devonian Oil Co. No. 3 Christmas, C SW SE sec. 28-22-37. Cellar and pits.

Empire Oil & Ref. Co. No. 4 Clossen A, C SE SE sec. 6-22-36. Drlg. 3,506 ft.

Empire Oil & Ref. Co. and Atlantic Ref. Co. No. 1 Hodges, NE cor. sec. 8-24-37. Drlg. 2,310 ft.

Empire Oil & Ref. Co. No. 1 Parsons, C SE SE sec. 27-19-36. Drlg. 1,410 ft.

Empire Oil & Ref. Co. No. 1-G State, sec. 2-21-36. T.D. 3,900 ft.; shut down.

Empire Oil & Ref. Co. No. 2-G State, C SE SW sec. 2-21-37. Drlg. 3,720 ft.

J. E. Farrell No. 2-B Walden, C NE SW sec. 15-22-37. T.D. 3,495 ft.; drilling plug.

J. E. Farrell No. 2-C Walden, C SE SW sec. 15-22-37. Drlg. 3,665 ft.

Bert Fields No. 3 Turner State, NW sec. 32-20-37. Spudded.

Gulf Oil Corp. No. 1-E Arnott-Ramsey, C SW SW sec. 16-25-37. T.D. 3,497 ft.; testing.

Gulf Oil Corp. No. 2 Baker, SE sec. 5-22-37. T.D. 20 ft.; set csg.

Gulf Oil Corp. No. 1 Boyd, sec. 23-22-37. T.D. 3,681 ft.; testing.

Gulf Oil Corp. No. 4 Campbell, sec. 7-21-36. Drlg. 3,298 ft.

Gulf Oil Corp. No. 2 Cole, C NE NE sec. 16-22-37. T.D. 1,141 ft.; shut down.

Gulf Oil Corp. No. 3 Cole, C SE NE sec. 16-22-37. Derrick.

Gulf Oil Corp. No. 5 Collins, sec. 14-21-36. Drlg. 3,485 ft.

Gulf Oil Corp. No. 2 Day, NW sec. 6-22-36. Drlg. 710 ft.

Gulf Oil Corp. No. 1 Elliott, SW SE SE sec. 15-25-37. Drlg. 2,985 ft.

Gulf Oil Corp. No. 2 Gramm State, C NW SE sec. 17-19-37. T.D. 3,990 ft.; acidized.

Gulf Oil Corp. No. 1-D Janda, C NW SW sec. 2-21-36. Drlg. 450 ft.

Gulf Oil Corp. No. 1 Knight, sec. 27-24-37. T.D. 3,574 ft.; cleaning out.

Gulf Oil Corp. No. 2-C Kutter, NE sec. 18-19-37. Drlg. 2,400 ft.

Gulf Oil Corp. No. 1 Monda, C SE SW sec. 21-22-37. Drlg. 2,280 ft.

Gulf Oil Corp. No. 2 Reeves, C SE NW sec. 29-20-37. T.D. 3,840 ft.; cleaning out.

Gulf Oil Corp. No. 1 Rinewalt, NW sec. 4-22-37. T.D. 31 ft.; set csg.

Gulf Oil Corp. No. 1 Sticher, C SE SW sec. 4-22-37. T.D. 1,230 ft.; R.U.S.T.

Gulf Oil Corp. No. 2 Westfall, SE sec. 15-25-37. T.D. 3,418 ft.; running tubing.

Gulf Oil Corp. No. 1-B White, SE sec. 35-20-36. Derrick.

Homestead No. 1 Clifford, SW sec. 12-26-32. Wildcat. Moving in machine.

Humble O. & R. Co. No. 1 Fopeano, C SE SW sec. 25-20-36. Drlg. 3,000 ft.

Humble O. & R. Co. No. 2 Saunders, C NW NW sec. 9-22-34. T.D. 555 ft.; cleaning out.

Humble O. & R. Co. No. 2-G State, C NE NW sec. 23-21-36. Derrick.

Humble O. & R. Co. No. 1 Williams, C SE NE sec. 34-24-37. T.D. 3,535 ft.; running tubing.

Jal Nat. Gas Corp. No. 2 Justis, NE sec. 20-25-37. Drlg. 2,960 ft.

Landreth Prod. Co. No. 3 Grizzell, C NW SW sec. 5-22-37. Spudded.

Magnolia Pet. Co. No. 4 Carson, SW sec. 28-21-37. T.D. 3,627 ft.; set 7-in. csg.

Magnolia Pet. Co. No. 3 Cary, sec. 21-22-37. T.D. 3,620 ft.; F. 10 B.O.P.H.

Magnolia Pet. Co. No. 4 Cary, C SW SW sec. 21-22-37. Derrick.

Magnolia Pet. Co. No. 1 Hanna, sec. 7-26-38. Wildcat. T.D. 4,030 ft.; S.D.O.

Magnolia Pet. Co. No. 1 State G, NW NW NE sec. 34-17-34. T.D. 4,905 ft.; P.B. 4,794 ft.

Maljamar O. & G. Co. No. 3 Mitchell, C NE NE sec. 20-17-32. Drlg. 3,765 ft.

J. A. Mascho No. 1 Cloyd, C SE SE sec. 20-22-33. Wildcat. Derrick.

McDonald & Weiner No. 1 Elliott, SE cor. sec. 19-21-37. Derrick.

Mid-Continent Pet. Corp. No. 3 Greer, C SE NW sec. 21-22-36. Rigging up rotary.

Mid-Continent Pet. Corp. No. 1 Owen, C NW NW sec. 3-22-37. T.D. 3,601 ft.; R.U.S.T.

National Drlg. & Prod. Co. No. 1 Flint, C NE NE sec. 29-20-34. Wildcat. Drlg. 445 ft.

Ohio Oil Co. No. 3 State-Hansen, C W½ NE NE sec. 16-20-37. Drlg. 3,550 ft.

Ohio Oil Co. No. 7 State-McDonald, C SW SE sec. 16-22-36. T.D. 3,851 ft.; to deepen.

Ohio Oil Co. No. 3 State-McGrail, NE sec. 27-19-36. T.D. 268 ft.; set 9⅝-in. csg.

Ohio Oil Co. No. 2 Turner, SW NW SE sec. 29-21-37. Drlg. 760 ft.

Phillips Pet. Co. No. 1 Lea, C NW NW sec. 30-17-34. Wildcat. T.D. 292 ft.; set 13-in. csg.

Plains Prod. Co. No. 1 Humphreys, NE sec. 3-25-37. Loc.

Plains Prod. Co. No. 2 Moseley, SE sec. 34-22-37. Cellar.

Repollo Oil Co. No. 6 Byrd, NE NW SW sec. 11-20-36. Drlg. 3,571 ft.

Repollo Oil Co. No. 2 Christmas, sec. 28-22-37. Drlg. 2,400 ft.

Repollo Oil Co. No. 3 Jamison, SW NE NE sec. 21-24-37. Drlg. 2,550 ft.

Repollo Oil Co. No. 1 Turner, sec. 29-21-37. Drlg. 2,000 ft.

Repollo Oil Co. No. 1 White, SE sec. 24-20-36. T.D. 260 ft.; fishing.

Rowan Drlg. Co. No. 1-A Elliott, SW sec. 27-22-37. T.D. 1,170 ft.; shut down.

Rowan Drlg. Co. No. 1 Walden, C NW NW sec. 15-22-37. Drlg. 3,465 ft.

Rowan Drlg. Co. No. 2 Walden, C NE NW sec. 15-22-37. Derrick.

Samedan Oil Co. No. 3 Hughes, sec. 4-23-27. T.D. 3,631 ft.

Schermerhorn Oil Co. No. 1 Woolworth, C NW NE sec. 28-24-37. T.D. 3,477 ft.; est. 1,000 bbls. oil.

Skelly Oil Co. No. 1 Baker, C NW NW sec. 26-22-37. Drlg. 2,810 ft.

Skelly Oil Co. No. 1-B Harrison, C NE NW sec. 9-23-37. Drlg. 3,479 ft.

Skelly Oil Co. No. 2-B Harrison, C NW NW sec. 9-23-37. Drlg. 1,170 ft.

Skelly Oil Co. No. 1 Grizzell, C SW NE sec. 6-22-37. Drlg. 290 ft.

Skelly Oil Co. No. 1 Hill, C Lot 7, sec. 6-21-37. Drlg. 1,330 ft.

Skelly Oil Co. No. 2 G. W. Sims, C NW NE sec. 9-23-37. Drlg. 1,775 ft.

Skelly Oil Co. No. 3 H. O. Sims, NW sec. 3-23-37. Drlg. 2,760 ft.

Stanolind O. & G. Co. No. 4-A Gilluly, C NW NE sec. 24-20-36. Drlg. 3,620 ft.

Stanolind O. & G. Co. No. 5-A Gilluly, NE sec. 25-20-26. Drlg. 1,600 ft.

Stanolind O. & G. Co. No. 6-A Gilluly, C NE SW sec. 25-20-36. Location.

Stanolind O. & G. Co. No. 1 Hill, C Lot 16, sec. 5-21-36. T.D. 3,760 ft.; flowed 10 bbls. in 8 hrs.

Stanolind O. & G. Co. No. 1-B Meyers, C NW NW sec. 7-24-37. Loc.

Stanolind O. & G. Co. No. 3 Meyers, SE sec. 4-24-37. T.D. 3,640 ft.; testing.

Stanolind O. & G. Co. No. 8 Terry, C NW SE sec. 9-19-38. Location.

W. H. Street No. 2 Wood, C SW NE sec. 22-22-37. Drlg. 150 ft.

Texas Co. No. 1 Keohane, C NE NE sec. 18-19-37. T.D. 3,850 ft.; setting 7-in. csg.

Texas Co. No. 2 Lea, C SE NE sec. 15-20-34. Drlg. 2,628 ft.

Texas Co. No. 1 Keohane, C NE NE sec. 18-19-37. T.D. 3,850 ft.; setting 7-in. csg.

Texas Co. No. 11 Lieu Lands, C NW NW sec. 20-20-37. T.D. 3,867 ft.; testing.

Texas Co. No. 12 Lieu Lands, C SW SW sec. 20-20-37. Drlg. 3,540 ft.

Texas Pacific C. & O. Co. No. 4-A State, C SW SW sec. 9-22-36. Drlg. 3,850 ft.

Tide Water Associated Oil Co. No. 1-K State, SW sec. 13-20-36. Loc.

Tide Water Associated Oil Co. No. 3-J State, C SE NW sec. 17-19-37. Drlg. 3,273 ft.

Tide Water Associated Oil Co. No. 3 Walden, sec. 21-22-37. T.D. 3,615 ft.; cleaning out.

Western Gas Co. No. 3 Harrison, C NW SW sec. 20-24-37. Drlg. 3,388 ft.

Western Gas Co. No. 4 Harrison, C NW SW sec. 29-24-37. Drlg. 3,277 ft.

Williams & Cockburn No. 3 Miller, C SW SW sec. 23-17-32. T.D. 3,873 ft.; cleaning out.

Eddy County

Barnsdall Oil Co. No. 6 Dodd, sec. 22-17-29. Drlg. 2,575 ft.

F. E. Baker No. 1 Eddy, NE sec. 12-22-27. T.D. 55 ft.; M.I.M.
Barnsdall Oil Co. No. 5 Dodd, sec. 22-17-29. T.D. 2,757 ft.; P.B. 2,730 ft.; est. 60 bbls. oil.
Fred Brainerd No. 2 Brainerd, sec. 5-18-27. T.D. 380 ft.; S.D. for repairs.
Ed Bryant No. 1 Stebbins, C NE SW sec. 19-20-29. T.D. 237 ft.; S.D.
T. D. Collins No. 1 Weiler, C NW NW sec. 13-24-36. Drlg. 904 ft.
Continental Oil Co. No. 1 Etz, C NW NE sec. 24-16-30. Drlg. 375 ft.
Continental Oil Co. No. 1 Keyes, C NW NE sec. 28-20-30. T.D. 1,593 ft.; S.D.O.
William Dooley No. 1 Featherstone, NE NW NW sec. 24-20-26. Drlg. 387 ft.
Flint Prod. Co. No. 1-B State, SE sec. 20-17-30. Drlg 3,800 ft.
Franklin Pet. Corp. No. 1 Nelson, NW sec. 4-18-30. Wildcat; T.D. 2,834 ft.; S.D. repairs .
F. W. & Y. Oil Co. No. 4 Gissler, C SE SE sec. 14-17-30. Drlg. 3,260 ft.
F. W. & Y. Oil Co. No. 5 Gissler, C NE SE sec. 14-17-30. Drlg. 3,165 ft.
F. W. & Y. Oil Co. No. 3 Jackson, C NW SE sec. 13-17-30. T.D. 2,969 ft.; setting casing.
F. W. & Y. Oil Co. No. 4-A Jackson, NE sec. 13-17-30. Rig.
F. W. & Y. Oil Co. No. 5-A Jackson, NE sec. 13-17-30. Location.
F. W. & Y. Oil Co. No. 3-X Jackson, SE sec. 13-17-30. Drlg. 1,130 ft.
F. W. & Y. Oil Co. No. 2-A Stevens, C NW SW sec. 13-17-30. Location.
F. W. & Y. Oil Co. No. 3-A Stevens, NW sec. 13-17-30. Drlg. 1,200 ft.
F. W. & Y. Oil Co. No. 2-B Stevens, NW sec. 13-17-30. Rig.
Grayburg Oil Co. No. 3 Keeley, SE NE NE sec. 24-17-29. T.D. 3,108 ft.; acidized.
H. & W. Drlg. Co. No. 1 Danford, C SE SE sec. 9-22-29 Drlg. 2,880 ft.
C. F. Ingram No. 1 Page, NE NE SW sec. 15-21-28. Drlg. 450 ft.
W. A. Nichols No. 1 Johnson, NE sec. 35-16-21. Wildcat. T.D. 825 ft.; setting 8 1/7-in csg.
Pool Oil & Gas Co. No. 1 Reed, SW sec. 28-24-28. Wildcat. Spudded.
Repollo Oil Co. No. 1-D Parke, sec. 15-17-20. T.D. 3,495 ft.; to test.
Paul Sargent No. 1 State, NE sec. 16-17-31. Drlg. 2,300 ft.
A. A. Shugart No. 1 Sullivan, C NW SW sec. 35-18-31. Loc.
W. O. Snyder No. 1 Pecos Irrigation, C NE SE sec. 15-25-28. T.D. 575 ft.; shut down.
Superior Oil Co. No. 1 Foster, SE SE NE sec. 17-17-31. Drlg. 510 ft.
Tigner, Etz & Keyes No. 2-B Keyes, NW sec. 10-17-28. Location.
Weiner & McDowall No. 1 Kerr, C SE NW sec. 3-24-24. Rigging up machine.
Neil H. Wills No. 1 State, C NW NW sec. 20-20-30. T.D. 1,468 ft.; S.D. for casing.

Chaves County

English & Harmon No. 1 Billingslea, SE sec. 9-15-29. T.D. 2,870 ft.; shut down.

Curry County

Bond & Harrison No. 1 Hart Ranch, C NW SE sec. 13-2n-31. T.D. 1,246 ft.; S.D.

Dona Ana County

Juels C. Bertrand No. 1 Casad Permit, sec. 24-26-5e. T.D. 47 ft.; S.D.O.

McKinley County

S. Dysart No. 1 Government, NE sec. 14-14-10w. T.D. 1,390 ft.; fishing.

Otero County

George Mulvey No. 1 State, SW cor. sec. 11-25-8. T.D. 263 ft.; shut down.
Fred Turner No. 1 Evans, NW NW SW sec. 22-14-12. O.W.D.D.; wildcat; drlg. 2,885 ft.

Roosevelt County

C. B. Peterson No. 1 Goode, NW SE SE sec. 28-5s-30. Bldg. rig.

COLORADO

Adams County

Glenridge Oil Corp. No. 1 Hills, SE cor. sec. 27-3s-64w. S.D. 4,345 ft.; W.O. tools.

Archuleta County

The William E. Hughes Estate and Continental Oil Co. No. 1 Burns, unsurveyed land in Township 32n, Range 4e, shut down at 1,305 feet; probably abandoned.

Bent County

Indian Terr. Ill. Oil Co. and Olson Drlg. Co. No. 1 Arbes, C Lot 2, sec. 2-21s-48w. Drlg. 1,700 ft.

Boulder County

J. B. Furstenberg No. 1 Foote, SE sec. 20-1n-70w. Cmtd. 8¼-in. at 200 ft.; drlg. plug.
Boulder Prod. & Dev. Co. No. 11 Harlow Est., SE NE sec. 36-2n-71w. T.D. 719 ft.; rmg. to run pipe to bottom

Fremont County

Utex Oil Co. No. 26, C SE SW sec. 20-20s-69w. T.D. 300 ft.; fsg.; cmtd. 10-in.

Garfield County

Roaring Fork Oil Co. No. 1 Patterson, C NE sec. 36-7s-88w. Drlg. 223 ft.; dark Penn. sh.

Huerfano County

S. W. Pressey No. 1 Ojo, SW NE sec. 10-29s-69w. Drlg. 3,450 ft.

Kiowa County

Morgan & Flynn et al No. 1 Hostetter, C NW SE sec. 6-20s-46w. R.U.R.

Larimer County

Great West O. & G. Corp. No. 1 Haworth, C SW SE sec. 16-4n-69w. Drlg. below 200 ft. in Pierre sh. in 15½-in. hole.

Mesa County

Midwest Drlg. & Dev. Co. No. 1 Callahan, NE NW SE sec. 30-8s-97w. Drlg. below 100 ft.

Moffat County

Morapas Pet. Co. No. 1 Coles, SW SW SE sec. 1-3n-92w. Cmtd. pipe at 1,310 ft. to S.O.W. at 1,225 ft.
Mountain Fuel Supply Co. No. 1 Donnell, C SE NE sec. 31-12n-97w. Cg. 5,642 ft. in Lower Wasatch.
Anderson-Kerr Drlg. Co. et al No. 1 Denise, C SE SE sec. 19-9n-99w. S.D. 2,500 ft.; W.O. rotary tools.
Anderson-Kerr Drlg. Co. No. 1 Marrs, C SE NE sec. 17-11n-100w. Drlg. below 1,800 ft.
Texas Co. No. 4 Iles Inv. Co., Lot 7, sec. 23-9n-92w, Iles field. Cg. 3,459 ft. in blk. sh.

Montezuma County

McElmo Oil Co. No. 1 West, NE NW NW sec. 31-36n 17w. T.D. 3,960 ft.; U.R. 6⅝-in. to bottom.

Morgan County

Swisher et al No. 1 Lunt, SE cor. sec. 3-4n-60w. T.D. 1,718 ft.; shot with 10 qts.; exploded prematurely; C.O. to shoot again.

Park County

South Park Oil Co. No. 1 Lemar, NE NE SE sec. 34-11s-75w. Drlg. 4,840 ft. in sh.; S.O. 5 B.P.D. at 4,825 ft.; considerable gas.

Pitkin County

Glenco Dev. Co. No. 1 Christiana, NW cor. sec. 9-10s-89w. T.D. 2,064 ft.; W.O. 12½-in. to run to 200 ft.

Rio Blanco County

Another wildcat on the western slope is in prospect on the Beaver Creek dome in Townships 1n-91w and 2n-92w. Permits are held mostly by northwestern Colorado parties. Geologists for a major company are now working out the structure. In 1930 Texas Co. acquired two of the permits. Five sections are within the 250-foot contour and eight are possibly on structure. It is 20 miles east of the Meeker structure and is geologically higher than that dome and sands in the Pennsylvanian can be tested within 3,000 feet.

Texas Co. and California Co. No. 1 Unit, SW SE NW sec. 35-3n-94w. T.D. 677 ft.; rmg.

LaPlata County

Nick Spatter No. 1 Bryce, SE SW SW sec. 31-33n-9w. T.D. 150 ft.; U.R. 12½-in. to S.O.W. at 42 and 102 ft.

WYOMING

Albany County

Murphy Oil Co. No. 8 Holst, C SW SE sec. 13-17n-77w. R.U.R.
Hal Blakeman No. 1 Chapple, C NE NW sec. 33-21n-67w. T.D. 1,681 ft.; installing heavier equip.
Murphy Oil Co. No. 1 Holst-Woolf, NW NW NW sec. 19-17n-76w. T.D. 4,067 ft.; tstg. Dakota through perforated 7-in.
Murphy Oil Co. No. 4 Wilson, NW NW SW sec. 18-17n-76w. Drlg. 2,967 ft. sh.

Big Horn County

Ohio Oil Co. No. 3 Sidon Canal, Lot 40, NW SW sec. 24-56n-97w. Loc. (first report).
Ohio Oil Co. No. 2 Couzzens, Lot 40, SE SE sec. 23-56n-97w. Loc. (first report).
Joan Oil Co. No. 1 Howell, NE NW NE sec. 32-55n-97w. Resumed; drlg. 1,400 ft.
Big Horn Pet. Trust No. 1 Parker, C SW SW sec. 23-49n-89w. Drlg. 1,408 ft.
Yale Pet. Corp. No. 1 Stock-Jones, SE cor. Lot 52-56n-97w. Drlg. 3,918 ft.; top Madison 3,833 ft.
Ohio Oil Co. No. 2 Byron-Baker, SW NW sec. 23-56n-97w. Drlg. 3,660 ft.
Ohio Oil Co. No. 1 Pryde, C SW SE sec. 24-56n-97w. Drlg. 4,391 ft.
Ohio Oil Co. No. 1 Smith, NE cor. Lot 61, sec. 33-56n-97w. T.D. 4.094 ft.; cmtd. 7-in. at 4,000 ft.; cd. nearly 100 ft. of sat. Madison lime.
Woods-Callahan Oil Co., Ltd., and Wyoming O. & R. Co. No. 1 Evans, NE NE NW sec. 12-44n-91w. Drlg. 1,975 ft. in Embar.

Campbell County

G. J. Sherin et al No. 1 Rodes, NE SE SW sec. 24-49n-74w. Drlg. 500 ft.

Carbon County

Ohio Oil Co. No. 12 H. & C., SE SW sec. 35-20n-78w. Loc. (first report).
Sinclair-Wyoming Oil Co. No. 11 Wertz, SE NW NW sec. 7-26n-89w. Drlg. 2,565 ft.
Ohio Oil Co. No. 1 Wyo. Oil & G. Co., C SE SW sec. 29-27n-89w. Cmtd. 10¾-in. at 114 ft.; W.O.C.
Producers Oil Co. No. 1, CNL sec. 14-20s-88w. Drlg. 194 ft.
Ohio Oil Co.-California Co. No. 5 Cronberg-U. P., C NW NW sec. 25-21-79w. Drlg. 1,995 ft.; prep. to run 10-in.
Ohio Oil Co. No. 1 Union Pacific, C NW NW sec. 20-21n-80w. Drlg. 980 ft.
Ohio Oil Co.-California Co. No. 3-A Kyle, C SW NE sec. 26-21n-79w. Drlg. 1,537 ft.; 10¾-in. cmtd. 1,412 ft.
Medicine Bow Oil Co. No. 1 Hintze-Govt., C NE SE sec. 18-22n-78w. T.D. 2,347 ft.; P.B. to second Sundance at 2,140-80 ft.; shot with 40 qts.; tstg.
Ohio Oil Co.-California Co. No. 4 Union Pacific, C SW SW sec. 25-21n-79w. Tstg. Upper Sundance at 5,412-46 ft.
Ohio Oil Co.-Medicine Bow Oil Co. No. 1 U. P.-Wister, C NW SW sec. 17-22n-78w. Drlg. 1,905 ft.
Ohio Oil Co. No. 8 Dixon, SE NE SE sec. 34-20n-78w. T.D. 5,409 ft.; cir. to loosen D.P.; will D.D.

Converse County

Wyoming Southern Oil Co. No. 3 Salisbury, SE SE NE sec. 27-32n-69w. Spdg. (first report).
Elbe Oil Ld. & Dev. Co. No. 1 Benham, NW NE sec. 5-31-70w. M.I.M. (first report).
Tom Carney No. 1 Beaver, SE SE SW sec. 28-35n-68w. M.I.M.
Chadron-Osage Oil Co. No. 1 State, SW cor. sec. 16-32n-69w. Drlg. 3,600 ft.

Johnson County

Carter Oil Co. No. 3 Rider, C NW SE sec. 17-48n-82w. Cg. 5,103 ft.

Fremont County

Sinclair-Wyoming Oil Co. No. 2-C Muskrat, NE SW SW sec. 1-33n-92w. Cg. 7,363 ft. in hd. Dolomite.
H. Kenyon Burch No. 1 Enos, CEL NE NE sec. 28-3n-1w. S.D.O. 970 ft.; no shows.

Capital Markets Recognize
The Medium-Sized Oil Business

Large corporations always have had access to new funds. Only within the last two years have the capital markets fully recognized the investment possibilities inherent in many medium-sized corporations. This is true of oil companies as well as other types of industry.

Oil company executives or owners who are considering public offering of securities for any of the reasons which are actuating others are invited to communicate with us. Such reasons include plans for expansion and intelligent anticipation of inheritance taxes, to mention only two.

We have recently successfully completed the financing of the Superior Oil Corporation, and are interested in discussing capital financing for other comparable companies.

Our record of success, plus the distributing facilities we have developed, is of distinct value to corporation owners and executives contemplating financing.

Inquiry invited

Eugene J. Hynes & Co., Inc.

INVESTMENT BANKERS

61 Broadway New York, N. Y.

Ben Stewart No. 1 Darnell, NE SE sec. 26-3n-1w. Drlg. 115 ft.

Lincoln County

H. M. Eller et al No. 4 Govt., SE NW SW sec. 32-19n-116w. T.D. 401 ft.; will test S.O. in lenticular sd. at 397-401 ft.
Place Oil Co. No. 1 Davis, SE SE SE sec. 9-26n-11w. T.D. 1,151 ft.; cmtd. 8⅝-in. at 1,130 ft.

Natrona County

Stanolind O. & G. Co. No. 1 T.P., C NW SE sec. 26-40n-79w. Drlg. 3,880 ft. in r.b.
Wyalta Oil Co. No. 4 Govt., NW NW sec. 5-29n-81w. Cmtd. 6⅝-in. on top Sundance at 1,082 ft.; rng. 2-in. tbg. to test at 1,030-72 ft.
Wyalta Oil Co. No. 5 Govt., SW SW sec. 30-30n-81w. Tstg. at 1,021 ft.
Wyalta Oil Co. No. 6 Govt., NE SE NW sec. 5-29n-81w. Cmtd. 10-in. at 704 ft.; Dakota at 565-664 ft.
Empire State Oil Co. No. 16, NW SW sec. 12-33n-83w. Cmtd. 6⅝-in. at 1,350 ft.; W.O.C.

Niobrara County

Continental Oil Co. No. 10 Tom Bell Cattle Co., an important test to the Minnelusa in the Lance Creek field, is circulating in with oil and it is probable it will be completed the last of this week. It is bottomed at 5,301 feet, the last 2 feet being in hard sandy quartzite It had oil saturated cores at 5,283-99 feet and hole was reamed to 5,280 feet where the 7-inch was cemented.

Cobb-Holly Development Co. No. 2 Novick, on the southwestern edge of the Sundance pool, which was turned into a mystery well upon reaching the Minnelusa, is reported to be bottomed at 5,300 feet and to have had a small show of oil and no water in sand at 5,268-74 feet. Equipment has not been moved away.

Ohio Oil Co. No. 2 Taylor-O.P.C.-32, NW NW SW sec. 3-35n-65w. Drlg. 3,982 ft.
Ohio Oil Co. No. 2 Leo-O.P.C., NE NE SE sec. 35-36n-65w. R.U.R.
Ohio Oil Co. No. 1 Leo-O.P.C.-7, NW NW SE sec. 35-36n-65w. Drlg. 2,778 ft.
Ohio Oil Co. No. 10 Lamb-Acct. 2, C NE SE sec. 5-35n-65w. Drlg. 1,542 ft.
Continental Oil Co. No. 1 Leach, SW NE NE sec. 29-36n-64w. T.D. 2,738 ft.; stdg. cmtd. to restore circulation.
Argo Oil Co. No. 4 Ford, SW NW SE sec. 33-36n-65w. Drlg. 3,300 ft.
A. B. Cobb and Holly Dev. Co. No. 2 Novick, SE SE SW sec. 6-35n-65w. No report (mystery well).
Continental Oil Co. No. 8 Otto Rohlff, SW SW SE sec. 31-36n-65w. Drlg. 1,693 ft.
Continental Oil Co. No. 10 Tom Bell Cattle, C SW NW sec. 34-36n-65w. T.D. 3,501 ft.; circulating in.
MacKinnie Oil & Drlg. Co. No. 2 Thompson, NW NW NE sec. 7-35n-65w. Drlg. 4,060 ft.
J. M. Huber Corp. No. 1 Lamb, SE SE SW sec. 27-36n-65w. S.D. 2,725 ft.

Park County

Prospects are encouraging for completion of an important Madison lime producer on the Garland dome in Kinney-Coastal Oil Co. No. 3 Government, SW NW NE section 24-56n-97w, 2½ miles northwest of the nearest producer in that horizon and the first flank well to reach the Madison in that part of the field. It is bottomed at 4,533 feet and still in saturated lime. It topped the lime at 4,482 feet and had shows of oil at 4,519-21 feet, followed by saturated cores at 4,521-35 feet. It will go to the first break in the lime (about 300 feet) unless water is encountered. Should this well come in as a producer it will about double the proven area of the Madison on this big structure and will benefit Ohio Oil Co., Utah Southern Oil Co. and Yale Petroleum Corp. as well as Kinney-Coastal Oil Co. The well is near the middle of a block of approximately 8,000 acres held by the Kinney-Coastal company. This block has been unitized and approved by the secretary of the interior. This well was originally drilled by Producers & Refiners Corp. as a joint test. The Kinney-Coastal company subsequently acquired the Producers & Refiners acreage and deepened the well to 4,338 feet where it showed for 50 bbls. of oil and 3,400,000 feet of gas per day. Showings in the Madison will encourage further drilling out on the flanks of this structure, one of the largest in Wyoming.

Resolute Oil Co. No. 1 Northern Pacific, C NE NW sec. 21-57n-101w. Cmtd. 13⅜-in. at 405 ft.; drlg. plug.
Kinney-Coastal Oil Co. No. 3 Govt., SW NW NE sec. 24-56n-97w. Cg. 4,390 ft. in Madison.
Resolute Oil Co. No. 1 Govt., C NE NE sec. 20-57n-101w. Drlg. 5,060 ft.; C.D.
Texas Co. No. 4 Sonners, SE cor. sec. 29-51n-100w. Drlg. 1,720 ft. in var. sh.
General Pet. Corp. No. 1 Govt., NW NW NW sec. 33-47-100. T.P. 6,076 ft.; P.B. to Tensleep; C.O.

Platte County

Dividend O. & R. Co., Inc., No. 1, CSL NW SW sec. 17-24n-66. T.D. 2,385 ft.; fshg. two strings.

Sweetwater County

Mountain Fuel Supply Co. No. 1-A Williams, being drilled as a water well preliminary to making a deep test with rotary in No. 1 Williams, on the Cherokee Ridge anticline, will be made into a test for oil. It had 200,000 feet of gas per day in a pocket at 200 feet, followed by more gas at around 300 feet which became ignited and burned down the water well rig.

Mountain Fuel Supply Co. No. 1-A Williams, NE NE sec. 5-12n-95w. T.D. 350 ft.; fshg. for tools.
Mountain Fuel Supply Co. No. 1 Williams, C NE NE sec. 5-12n-95w. Ready to spud.
Mountain Fuel Supply Co. No. 1 Stone, C SW SW sec. 18-19n-103w. Drlg. 3,677 ft.; test of Sundance at 3,535-43 ft.; not satisfactory.
Mountain Fuel Supply Co. No. 1 Union Pacific, C SE NE sec. 29-15n-104w, S of Baxter Basin. Loc. (first report).

Weston County

Osage field production for June amounted to 24,830 bbls. and refiners took 19,200 bbls.

H. D. Wiltse No. 13, SE NE NW section 17-46n-63w, was dry at 430 feet. Bert Higgins No. 5, CNL NW SW section 4-46n-63w, was dry at 300 feet. There are no active drilling operations in the field.

MONTANA

Big Horn County

Big Horn Oil & G. Co. No. 31, CWL SE NW sec. 23-1s-33e. Drlg. 625 ft.
Daniels Pet. Co. No. 1 May, C SE SE sec. 13-1s-33e. S.D. 3,950 ft.

Blaine County

Nadeau Bros. No. 1 fee, NW NW SE sec. 33-34n-17e. Cmtd. pipe at 525 ft. to S.O.W. in Eagle sd.

Carbon County

R. C. Tarrant No. 1 Heare, CWL NE NW sec. 14-6s-19e. Drlg. 130 ft.
Ohio Oil Co. No. 16 Kirt, C SE SE sec. 4-7s-21e. Drlg. 3,912 ft.
Geo. Muth et al No. 1, CSL SE SE sec. 23-6s-23e. Drlg. 1,575 ft.

Carter County

Tower Oil Trust No. 1, C SW NW sec. 8-9s-61e. Drlg. 126 ft.

Cascade County

C. Leonard Smith No. 1-A Smith-Schwingle, NE NE SW sec. 14-22n-2e. Asked for bids from rotary contractors to deepen from 620 ft.

Fallon County

Nagasco Corp. No. 1, SE sec. 34-5n-6e. Drlg. 720 ft.

Glacier County

There was one completion in the Cut Bank field and one near completion and one location for a wildcat on the west side.

P. M. K. Co. No. 3 Haglund, Sr., SE NW NE section 14-34n-6w, swabbed 50 bbls. first nine hours from the

Beefsteak ON THE HOOF!

Today, sleek cattle feeding in luscious green valleys—beefsteak on the hoof for tomorrow's dinner tables. But think of the part that water must play! Packing and refrigerating plants must have a plentiful and dependable supply of water. It is quite significant that so many specify Layne Pumps and Water Systems. If you are planning new wells or pumps, Layne offers a complete service from the original survey to the complete well and pump installation. For illustrated literature write

LAYNE & BOWLER, INC.
Dept. O, Memphis, Tenn.

AFFILIATED COMPANIES
Layne-Arkansas Co., Stuttgart, Ark.
Layne-Atlantic Co., Norfolk, Va.
Layne-Central Co., Memphis, Tenn.
Layne-Northern Co., Mishawaka, Ind.
Layne-Louisiana Co., Lake Charles, La.
Layne-New York Co., New York City.
Layne-Northwest Co., Milwaukee, Wis.
Layne-Ohio Co., Columbus, Ohio
Layne-Texas Co., Houston, Texas.
Layne-Western Co., Kansas City, Mo. Chicago, Ill., and Minneapolis, Minn.
Layne-Bowler New England Company, Boston, Massachusetts.
International Water Supply, Ltd., Port Erie, N., Ontario, Canada.

LAYNE PUMPS
WELL WATER SYSTEMS

TRAFFIC rolls along uninterrupted when HYDRAUGER is on the job

The use of HYDRAUGER in laying pipe under pavements avoids traffic interruption and damage to pavements. It bores straight, quickly, and with least possible expense.

The latest type Model 2A-2X is easier to handle and much faster than previous models. It is driven by 5 h.p. airmotor—bores holes from 2½" to 14½"—has hi-tensile bar joints and easy-to-handle 4'-8" bar sections. Its new style cutters bore faster and straighter. The shorter frame facilitates setting up. Write for full details about the new 2A-2X.

HYDRAUGER CORPORATION, Ltd.
116 New Montgomery Street, San Francisco, Calif.

NEW HIGH POWERED MODEL 2A-2X

HYDRAUGER
"The Mechanical Gopher"

Cut Bank at 2,829-75 feet and was then shot with 80 quarts and is cleaning out.

Glacier Production Co. No. 1 Connolly A-20, C SE SE section 30-34n-5w, has 2,000,000 feet of gas, estimated in the Sunburst at 2,650-2,710 feet. It drilled through the Cut Bank at 2,714-32 feet in which it had only a show of oil. The 7-inch was cemented at 2,715 feet and it is shut down waiting for perforator gun. Total depth is 2,745 feet.

Drumheller Oil Trust No. 1 fee, C NE SW sec. 17-34n-6w. Drlg. 350 ft. (first report).
Frank R. Henry et al No. 1 Walker, C SW sec. 35-36n-8w. M.I.M. (first report).
Texas Co. No. 2 State (M-455), C SW NW sec. 16-32n-4w. Drlg. 2,300 ft.
Glacier Prod. Co. No. 1 Long, CWL NE NW sec. 22-32n-5w. Spdg. 100 ft.
Glacier Prod. Co. No. 1 Morgan Unit, NE NE SE sec. 33-34n-5w. Drlg. 1,260 ft.; Colo. 345 ft.; 10¾-in. 368 ft.
Hannah-Porter No. 4 All.-130, CWL SW SE sec. 6-32n-5w. Drlg. 1,370 ft.
Santa Rita O. & G. Co. No. 1 Lahr, C SE SE sec. 27-33n-5w. Cmtd. 10¾-in. at 325 ft.; W.O.C.
Glacier Prod. Co. No. 1 Barrington, 820 ft. from N line and 2,640 ft. from W line, sec. 19-33n-5w. Drlg. 1,810 ft.
Wm. Hanlon No. 3 All.-128, CWL SW NE sec. 12-32n-6w. Drlg. 2,050 ft.
Texas Co. No. 2 Tweedy, C NE NW sec. 21-35n-6w. Drlg. 2,633 ft.
A. B. Cobb No. 5 Walburger, C NE SE sec. 35-35n-6w. R.O.G. (first report).
Grant Oil Co. No. 1 Rueffen, C SW SE sec. 5-32n-5w. Drlg. 1,650 ft.
R. C. Tarrant No. 4 Reickhoff, NE NE SE sec. 22-32-6w. Drlg. 3,925 ft.; 8¼-in. at 3,286 ft.; S.O.
K. D. Pardee No. 1 Corrigeaux, NE NE SE sec. 35-34n-6w. Cmtd. 7-in. at 2,960 ft.; S.D.
A. R. Pardee No. 1 Anderson, C SE SW sec. 31-32n-5w. T.D. 2,740 ft.; C.O. 1,650 ft.

Judith Basin County

Fletcher E. Hunt No. 3, NW SE NE sec. 30-14n-15e. T.D. 1,600 ft.; cmtd. 6⅝-in.; top of Penn.

Petroleum County

H. C. Rowland No. 1 Kalispel, NE NE SE sec. 35-14n-25e. Drlg. 819 ft.
O. B. Canfield No. 1 Govt., CEL SE NE sec. 21-17n-24e. Rng. 3-in. to set at 750 ft.

Roosevelt County

John W. Schmidt et al No. 1 Frue, NW NW NE sec. 21-28n-50w. Drlg. 612 ft.

Toole County

T. P. Kyle No. 1 Kielbaugh, CWL SW SW section 12-37n-1w, semiwildcat on the Bow and Arrow dome, had water at 2,372 feet and was plugged and abandoned. This operator made a discovery on this dome last year in a 5,000,000-foot gas well, but no other producers have been drilled. The Coolidge interests recently took over the gas well.

There were two completions and six new operations in Kevin-Sunburst, including two locations by California Co., the first work it has done in this field in several years.

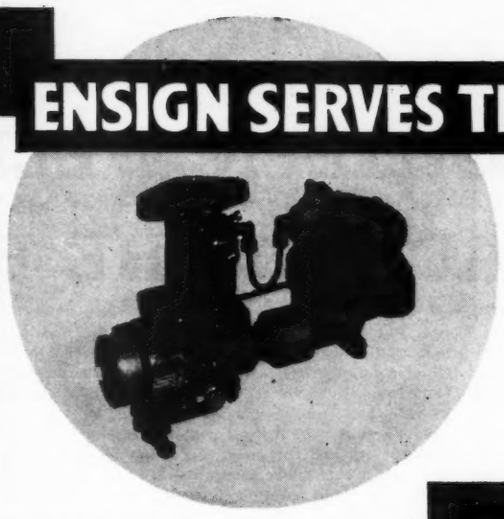
Prevol & Shea No. 1 Porter, CSL NW NW section 12-34n-3w, southwestern area, was dry and abandoned at 1,549 feet. Contact was at 1,527 feet and acid failed to produce results.

Texas Co. No. 6 Swears, NW NE SW section 9-35n-2w, pumped 77 bbls. of oil and 30 bbls. of water in 12 hours at 1,637 feet.

Texas Co. No. 7 Swears, SW cor. sec. 9-35n-2w. Loc. (first report).
California Co. No. 7 Neumann, NW NW NE sec. 23-35n-2w. Loc. (first report).
California Co. No. 6 Neumann NE NW NE sec. 23-35n-2e. Loc. (first report).
McCurdy No. 1 Holloweli C SE SW sec. 1-35n-3w. Drlg. 300 ft. (first report).
Larson & Ness No. 1 Horner, C NW NE sec. 30-35n-3w. Drlg. 250 ft. (first report).
G. C. Hoyt No. 4 McGowan, C NE NE sec. 8-35n-2w. Drlg. 1,200 ft. (first report).
Superior Pet. Co. No. 6 Govt., CSL SW NW sec. 12-35n-3w. Drlg. 985 ft.
Big West Oil Co. No. 5 McDonald, NE SE SW sec. 19-35n-2w. Drlg. 1,150 ft.
Burke & Kluth No. 1 Overby, NW NW NW sec. 30-34n-2w. Drlg. 750 ft.
Neil Spencer No. 1 Barkulo, C NW NW sec. 25-35n-4w. S.D. 25 ft.
Consolidated Gas Co. No. 1 Hugi, NE NE NW sec. 14-35n-3w. Drlg. 1,015 ft.
A. E. Crumley No. 1 Govt., NW NE SW sec. 27-36n-3w. T.D. 1,100 ft.; rng. 10-in.
Hardrock Oil Co. No. 1 Govt., SE NW NW sec. 11-35n-3w. Drlg. 1,645 ft.
Texas Co. No. 11 Bruin, SE cor. sec. 9-35n-2w. Cmtd. 7-in. 1,576 ft.
A. Beardslee No. 7 Swears, NE SW NW sec. 9-35n-2w. T.D. 1,650 ft.; will acid.
Lamont Pet. Co. No. 3 Van Note, CNL NW NW sec. 30-35n-2w. Drlg. 890 ft.
Nepstad et al No. 2 Haugen, C NW NE sec. 11-35n-3w. T.D. 1,825 ft.; contact 1,824 ft.; stdg.
Big West Oil Co. No. 4 McDonald, CNL SE SW sec. 19-35n-2w. T.D. 1,545 ft.; contact 1,527 ft.; tstg.
E. C. Carney No. 2 Stockman, CSL NW NE sec. 11-35n-2w. T.D. 1,634 ft.; contact 1,623 ft.; no results after acid.; shot 2-20 qts.; C.O.
Security Oil Co. No. 1 Kopsing, CWL SW SE sec. 24-34n-2w. Loc. (first report).
Capitol Oil Co. No. 1 Pace, C SE SW sec. 27-36n-1w. S.D. 2,008 ft.
S. V. Day No. 3 Halter, NE NE NE sec. 17-35n-2w. Drlg. 1,325 ft.
Watson et al No. 2 Leach, SE NE NE sec. 31-35n-3w. S.D. 1,796 ft.
Browning-Sunburst 32 Synd. No. 1 Goeddertz, NE NW

(Continued on Page 90)

ENSIGN SERVES THE INDUSTRY



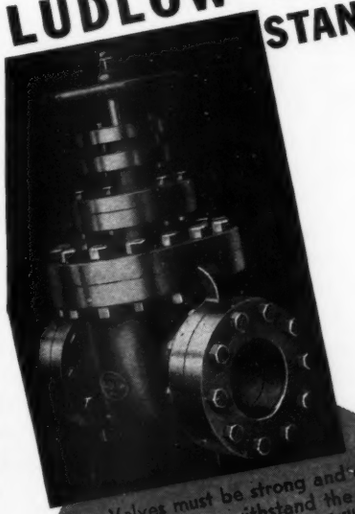
Ensign has been supplying the power industry with fine precision carburetors and fuel regulating equipment for more than a quarter of a century. Today these improved precision devices are used as standard equipment on power units produced by a large majority of the internal combustion engine manufacturers throughout the United States.

The Type K g l Natural Gas Carburetor, one of Ensign's complete line, is built for extra heavy service. It can be depended upon for steady operation with less fuel consumption and more power delivery, plus quick, sure starting without priming. Furnished in 5 sizes from 1" to 2" inclusive. Bulletin on request.

ENSIGN
CARBURETOR CO., Ltd.
Huntington Park, • California
Branches: Chicago, Illinois; Dallas, Texas

RENEW your subscription NOW!

LUDLOW VALVES STAND UP

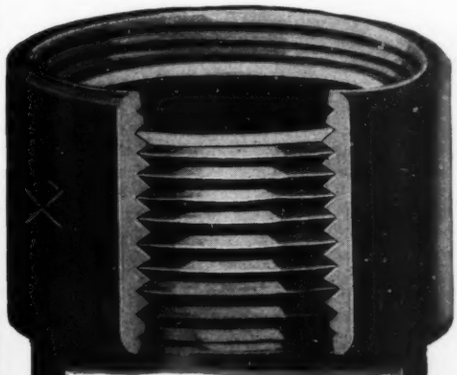


Valves must be strong and dependable to withstand the exacting demands of drilling, pipe line and refining operations.

All Ludlow valves are built to last. The fine materials used in their construction—and the original Ludlow principle of wedge closure means years of economical, rugged service. Write for complete catalog.

THE LUDLOW VALVE MFG. CO.
TROY, NEW YORK

Specify
"X-L"
"ALL THRED"
THREAD PROTECTORS



Here is your best protection against damaged threads to line pipe and tubing while in transit. Indorsed by the country's leading operators. Demand XL "All-Thred" Thread Protectors in your next order of pipe. Write factory at Wheeling or consult your oil field distributor. No obligation.

WHEELING MACHINE PRODUCTS COMPANY
WHEELING, W.VA.

Central West

By STAFF CORRESPONDENT

EIGHTEEN WELL LOCATIONS MADE IN THE BASIN FIELDS

MATTOON, Ill., July 19.—Operations in the Central Basin fields took on added interest in the past week with the report of 18 locations staked, most of them in Marion and Wayne counties.

The Marion County list included Vermillion Oil Co. No. 1 Methodist Episcopal Church, in section 28-4n-1e; Illinois National Oil & Gas Co. No. 1 Belcher, NE cor. SW NE SW section 28-4n-1e; Hausman and others No. 1 P. L. Mojonnier, SE cor. NW NE SW section 28-4n-1e, which had arrived at the cellar and pits stage; Adams Oil & Gas Co. No. 1 C. J. Wassem, SW cor. NE NW SW section 28-4n-1e; same company's No. 2 Nottier, NE cor. SW section 28-4n-1e, which was drilling at 434 feet; Adams No. 2 Mojonnier, SE cor. NE NW SW and No. 1 Mojonnier, SE cor. NW SW section 28; Adams No. 1 Harvey Hudspeth, NE cor. SW SW section 28, and No. 2 Ballance, NE cor. NW SW SW section 28 and No. 1 Ballance, NE cor. NW SW SW section 28 and same company's No. 1 City of Patoka, NW cor. SE NW SW section 28, all in the Patoka field in Township 4n-1e.

In Wayne County new locations included Pure Oil Co. No. 1 Byars, NE SE SE section 34-1n-7e; Pure Oil Co. No. 1 C. B. Clay, SE NE NW section 27-1n-7e; and Pure Oil Co. No. 1 C. A. Billington, SE SE SE section 23-1n-7e. In Jefferson County, Schlossberg & Sigel were clearing location for No. 1 Schneider, NE cor. SE section 15-1s-1e. In Coles County in which Mattoon is situated, Gregory & Mechling and others made a location for No. 1 Foltz, 1,260 feet from S and 200 feet from W lines of NE quarter section 31-14n-14w. In Clay County Benedum & Trees are moving in rotary for No. 1 Anna E. Volbert, 1,040 feet from E and 940 feet from S lines of SW quarter section 33-3n-8e.

Only two completions were reported, both of them dry holes. Milliken & Rush No. 1 Bahde, NW NW SW section 16-5n-3e, Fayette County, was abandoned at 2,292 feet. It topped the St. Genevieve lime at 2,080 feet. A. J. Colgan No. 1 Reichert, NW SW NW section 18-1s-7w was dry and abandoned at 2,022 feet. It is in St. Clair County.

Clay County

In Clay County, Pure Oil Co. was drilling at 3,124 feet in No. 1 B. W. Moseley, NE NW NE section 4-2n-8e. Top of the lime was found at 2,904 feet. Same company's No. 1 Nicholas Mosely, SE NW NE section 33-3n-8e, topped the St. Genevieve lime at 2,893 feet and was drilling at 2,958 feet. Same company's No. 2 Sarah Bechtel, SW SW NE section 33-3n-8e, had the top of the St. Genevieve lime at 2,889 feet; set 7-inch casing at 2,909 feet and was drilling at 2,942 feet. Pure Oil Co. No. 1 Albert Travis, SE NE NW section 33-3n-8e, found Cypress sand at 2,630-50 feet. The sand was cored from 2,936 feet to 2,951 feet and showed good saturation at the bottom. Wiser Oil Co. No. 1 D. Smith, SW SE NE section 28-3n-8e, was drilling at 2,595 feet. Wicklund Development Co. was drilling at 1,040 feet in No. 1 Sanford, SE SE NW section 29-3n-8e. Benedum & Trees were moving in rotary for No. 1 Mullinax, C NE NE SE section 27-1n-7e.

Marion County

Reports of drilling activity in Marion County included the following wells: Schlossberg & Sigel No. 1 Roddy, SW cor. SE SW section 20-2n-3e, was drilling at 1,420 feet, in a water sand. Adams Oil & Gas Co. No. 1 Nottier, NW cor. NE SW section 28-4n-1e, had Benoist sand at 1,427 feet and cored saturated sand at 1,424-32 feet. The crew was running 5-inch casing. Cypress Oil & Gas Co. No. 2 Adams, NE SW SW section 28-4n-1e, had 1,350 feet of fluid in the hole, 90 per cent of which was water. Total depth was 1,452 feet and 6⅝-inch casing was being run to 1,430 feet. Adams Oil & Gas Co. No. 1 Anna L. Davidson, NW cor. SW SE section 21-4n-1e, was drilled to 1,607½ feet, and plugged back to 1,500 feet and shot with 20 quarts at 1,427-35 feet. The crew was cleaning out. Same company's No. 1 Wassem, CSL SE NW section 28-4n-1e, had Benoist sand at 1,408 feet, and set 5½-inch casing at 1,409 feet. It was shot with 10 quarts at 1,409-19 feet and the crew was cleaning out. Brown and others No. 1 Bachman, NW NW SE section 22-4n-1e, had Stein sand at 1,370-90 feet. It contained water. The well, now at a total depth of 1,495 feet, will be deepened. Adams Oil & Gas Co. No. 1 Ainscough, NW cor. NE section 28-4n-1e, was pumping salt water and testing at a total depth of 1,610 feet. Eddington, Baldwin & Parker No. 1 Nichols, SE quarter section 12-4n-4e, was shut down at 2,284 feet because of boiler trouble. C. G. Evans No. 1 Allison, CNL NW SW section 33-4n-1e, had Benoist sand at 1,455-85 feet, with very light saturation. Total depth is 1,493 feet. The 8-inch casing was being pulled.

Washington County

W. S. Morris No. 1 Frank Morgan, SW SE NW section 22-1s-4w, was abandoned at 1,067 feet. The tools were lost in the hole. Milliken and others No. 1 Lesserman, NW NW NW section 36-1n-2w, was drilling at 275 feet.

Fayette County

Beaton & Ryer No. 1 Thompson, NW NW NE section 20-4n-1w, Fayette County, was drilling at 1,300 feet.

Wayne County

Mammoth Producing & Refining Co. No. 1 D. S. Garrison, NW NW NE section 11-1s-7e, Wayne County, was drilling at 2,160 feet. Washburn Petroleum Co. was drilling at 920 feet, with the hole full of water, in No. 1 Acola, NW NE NW section 31-2s-6e. Pure Oil Co. was drilling at 2,116 feet in No. 1 C. H. Billington, SE SE SE section 27-1n-7e, and at 926 feet in No. 1 Mullina, NE NE SE section 27-1n-7e.

Clark County

National Consumers Oil Co. was below 2,215 feet in No. 1 Minnie Jackson, NW NE SW section 21-11n-12w, Clark County.

Randolph County

Mabee and others were below 1,345 feet in No. 1 Wilson, CSL NE SE NE section 3-4s-4w, Randolph County.

Richland County

Ohio Oil Co. was drilling at 1,625 feet in No. 1 Arbuthnot, NW NW NW section 8-3n-9e, Richland County.

Clinton County

Adams Oil & Gas Co. No. 1 Brammeier, SW cor. NE SW section 2-1n-2w, Clinton County, was drilling at 1,000 feet, in a water sand.

Perry County

H. H. Forrester No. 1 fee, C W half SW NW section 11-3n-12w, was drilling at 5,030 feet, having made 11 feet of hole in a week's time.

OHIO FIELDS

FINDLAY, Ohio, July 19.—In the middle of apparently low ebb of drilling activities in Ohio, one well stands out as the high spot of the week's completions. It is Preston Oil Co. No. 149 Sunday Creek Coal Co., in section 35, Coal Township, Perry County. The well flowed 225 bbls. the first 24 hours after it was shot, with an estimated gas flow of 200,000 feet The top of the Clinton was encountered at 3,482 feet, with the first pay at 3,492 feet, a break from 3,502 to 3,507 feet, with more Clinton sand at from 3,507 to 3,515 feet. The total depth of the hole was 3,519 feet, with a natural flow of 75 bbls. The well was shot with 90 quarts, and started off flowing 20 bbls. per hour.

Another oil well that should be found quite interesting is Hulse & Kundts No. 2 J. W. Mossholder, in section 6, Perry Township, Coshocton County, which made 134 bbls. of oil in the Clinton during the first 24 hours after it was shot. The Clinton sand was encountered from 3,036 to 3,088 feet.

Scott and others also completed a commercial oil well of some significance in No. 4 W. H. Myers, in section 3, Licking Township, Muskingum County. The well made 125 bbls. of oil in the Clinton during the first 24 hours after shot. The sand was encountered at 3,164 to 3,210 feet. In the same township and county, the E. H. Everett Co. No. 3 G. H. Varner was completed as a 50-bbl. oil well in the Clinton at 3,144 to 3,173 feet. The well also had a flow of 150,000 feet of gas.

Two small gas wells are reported in the Central Ohio area; one is the Hill Products Co. No. 1 Sarah Harsch, in section 23, Perry Township, Licking County, which was completed in the Berea at 751 to 757 feet, with a natural flow of 46,000 feet. In Newark Township, of the same county, Wehrle Gas Co. No. 5 William A. Wehrle was completed in the Clinton sand at 2,366 to 2,410 feet. The well had an open flow of 70,000 feet of gas.

Northern Ohio completions were rather few in number, with none of the wells outstanding. The Ohio Fuel Gas Co. No. 1 Edna Baird, section 49, Sullivan Township, Ashland County, was a dry hole, with no sand at the Clinton horizon. The total depth of the hole was 2,675 feet. It was plugged and abandoned.

Harmen & George completed a small gas well on the No. 1 John P. Howey, in section 4, Congress Township, Wayne County. The well gauged 120,000 feet of gas naturally in the Clinton at 2,929 to 2,935 feet, with a total depth of 2,982 feet.

Kline and others No. 2 Charles Crittenden, section 28, Ruggles Township, Ashland County, encountered 5,000 feet of gas in the lime. The well was drilled to a total depth of 1,250 feet, shot and shut in with a rock pressure of 130 pounds.

In Huron County, Patterson and others No. 1 Bret Doane, section 3, Hartland Township, made 1,200 feet of gas after it was shot in the lime at 862 feet. At 882 feet, sulfur water, with a film of oil, filled the hole to a depth of 120 feet. A. C. Leathers and others No. 1 Dayton Reynolds was finally completed at a total depth of 871 feet. The well had an open flow of 8,000 feet of gas in the shale, with a rock pressure of 115 pounds.

In northwestern Ohio, in Putnam County, Brown and others No. 2 W. B. Williams, section 2, Blanchard Township, encountered 55 bbls. of oil and 60,000 feet of gas the first 24 hours after it was shot, in the Trenton at 1,320 to 1,343 feet.

In section 7, Tymochtee Township, Wyandot County, J. A. Blackmer No. 2 C. S. Grubel made 2 bbls. of oil and 2,000 feet of gas in the Trenton during the first 24 hours after shot. The pay was encountered at somewhere between 1,379 and 1,479 feet.

In southern Ohio, in section 22, Ward Township, Hocking County, J. B. Dawson No. 6 Carbon Coal Co. produced 23 bbls. of oil the first 24 hours after it was shot. The Clinton sand, in which the oil was encountered, was found at 3,355 to 3,390 feet, with a total depth of 3,395 feet

Speary Oil & Gas Co. No. 1 George Starling, section 13, Marion Township, Morgan County, was completed as a commercial gas well in the first and second Salt sands, at 915 to 923 feet and 927 to 930 feet, respectively. The majority of the gas was encountered in the

(Continued on Page 86)

Oklahoma Operations

WILDCAT PLAY INCREASING; MORE DEEP TESTS STARTED

By
DAL DALRYMPLE

Wildcats continued to attract attention in Oklahoma the past week. Several large wells were completed in the Fitts, Billings and other proven areas and field work generally showed little indication of a mid-summer let-down. A wildcat pool opener in Tillman County was officially completed after many weeks of testing and experimenting.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 1 Billington, SW SE SW section 32-9-3e, wildcat pool opener southwest of Tecumseh in Pottawatomie County, flowed 580 bbls. of oil through tubing when opened for 10 hours Saturday. The oil tested 39 gravity. Production was from Dolomite at 5,238 feet, after plugging back when water was found in Wilcox sand at 5,321 feet, total depth.

Estimated Daily Production

Estimated daily production of Oklahoma for the week ending July 17, and for the preceding week, was as follows:

	Barrels	
	July 17	July 10
Allen	5,350	5,375
Billings	6,900	6,625
Burbank	7,700	7,750
South Burbank	15,600	15,750
Balance Osage	21,250	21,250
Blackwell district	5,725	5,700
Bristow-Slick	7,575	7,550
Chandler	3,050	3,025
Crescent	11,750	9,725
Cromwell	3,350	3,325
Cushing-Shamrock	10,200	10,250
Duncan district	3,975	3,950
Edmond	18,600	18,500
Fish	6,600	6,250
Fitts	95,650	85,450
Jesse	4,050	3,050
Graham	4,475	4,500
Gray	1,150	1,125
Healdton	10,450	10,400
Hewitt	4,375	4,375
Holdenville	900	925
Keokuk	10,200	8,950
Konawa	1,550	1,525
Lucien	15,900	15,900
Moore	10,750	10,250
Oklahoma City	144,775	149,150
Olympic	13,750	13,450
Polo	975	1,025
Sasakwa and townsite	2,550	2,625
Sholem-Alechem	3,225	3,200
Seminole:		
Bowlegs	11,600	11,475
Carr City	5,475	5,650
Earlsboro	6,150	6,400
South Earlsboro	725	675
East Earlsboro	7,250	7,050
Little River	11,475	11,100
East Little River	1,175	1,075
Maud	725	725
Mission	2,125	2,175
Seminole	9,225	9,050
East Seminole	2,900	3,000
Searight	4,650	4,625
Total Seminole	63,475	63,000
St. Louis-Pearson	20,875	20,675
Tatums	5,650	5,700
Tonkawa-Garber-Thomas	4,950	4,925
Wewoka	3,225	3,225
Yale-Jennings	4,275	4,250
Other pools	76,100	75,600
Total Oklahoma	630,900	618,300

Two Stephens County wildcats were being watched closely as they neared decisions. Ed V. Parsons and others No. 1 Blake, C SW NW section 22-2n-8w, northwest of Duncan, had sand at 4,947-66 feet, total depth, with oil and gas saturation reported in cores at 4,951-66 feet. It is running considerably higher geologically then a deep dry hole completed in section 21-2n-8w early this year.

Carter Oil Co. and associates No. 1 Harley, C NE NE section 24-2s-4w, near Milroy in southeastern Stephens County and west of the deep discovery well in the Fox field of Carter County, was proceeding slowly below 7,340 feet. The Simpson series was topped at 6,308 feet, corrected, and several shows of oil and gas have been reported in cores.

Two more deep tests have been started in this general southern Oklahhoma area at Gulf Oil Corp. No. 1 Johnson, C SW NW section 26-2s-3w, and same operator's No. 1 Smith, C SW SE section 26-2s-3w, both in Carter County. They will be drilled below 8,000 feet if necessary to find the pay from which the deep Fox discovery well has been producing at the rate of 500 bbls. of oil daily under proration for the past year.

Frank Buttram and Southwest Drilling Co. have contracted to drill a Wilcox sand test in NW section 16-14-1e, northeastern Oklahoma County, on a surface structure on which Mr. Buttram owns a large block. Several major companies and independent operators have protection acreage around the block. Surface elevation is 1,100 feet. It is thought that Bartlesville sand, Dolomite and Wilcox sand may prove productive in this area. The deal was worked up by Ray Farrior and Indian States Oil Co., both having an interest in the test.

Wildcat Completions

Indian Territory Illuminating Oil Co. No. 1 Hatler, C SW NE section 32-2s-17w, pool opener in Tillman County, was plugged back from 5,169 feet, old total depth, to 4,352 feet. It was shot with Lane-Wells gun at 4,215-18 feet, and pumped 118 bbls. of oil and 112 bbls. of water in 24 hours. In the last week it averaged 58 bbls. of oil and 136 bbls. of water daily and was recompleted.

Frank Buttram and associates are starting a Wilcox sand test in section 16-14-1e, northeastern Oklahoma County

E. B. Hane No. 1 Duper, NW cor. section 21-2n-13w, Comanche County wildcat, was abandoned at 250 feet, total depth.

C. E. Beal No. 1 Eason, NE NE NW section 7-9-11, Hughes County wildcat, topped Wilcox sand at 3,900 feet, had a hole full of water and was dry and abandoned at 3,944 feet, total depth.

Shell Petroleum Corp. No. 1 Smith, NW SE NE section 30-5s-3e, wildcat in Carter County, topped Simpson formation at 3,807 feet and was dry and abandoned in lime and shale at 4,222 feet, total depth.

Mid-Western Chemical Co. No. 1 Blackburn, SE cor. section 10-10-9, Okfuskee County wildcat, had a hole full of water and was abandoned in sand at 1,800-15 feet, total depth.

Seminole County

Amerada Petroleum Corp. and others No. 3 Klabzuba, SE SW SE section 35-11-5, North Earlsboro area, Seminole County, had Wilcox sand at 4,610 feet, total depth 4,616 feet, swabbed 583 bbls. of oil in 12½ hours and was given an allowable of 100 bbls. daily.

Other recent Seminole County completions: Merva Oil Co. No. 1-B Johnson, SE NW NE section 10-10-8, second Wilcox sand 4,135 feet, total depth 4,166 feet, swabbed 73 bbls. of oil in nine hours, was shot and pumped 212 bbls. in 24 hours. Lynch No. 3 Cravins, NE SW SW section 24-5-5, total depth 2,675 feet, pumped 15 bbls. of oil. Eason Oil Co. No. 1 Orwig, SE cor. section 15-6-6, total depth 2,315 feet, 225 bbls. W. B. Pine No. 1-A Williams, SE NE NE section 22-6-6, total depth 1,851 feet, abandoned. Same operator's No. 1-B Williams, SE NE NE section 22-6-6, abandoned, total depth 600 feet. Shell Petroleum Corp. No. 1 Ceasar, NW SE NE section 11-7-6, old total depth 4,380 feet, deepened to 4,453 feet, plugged back to 3,358 feet, pumped 115 bbls. Amerada Petroleum Corp. No. 3 McLaron, NW NW NE section 36-10-7, total depth 3,635 feet, potential 699 bbls. Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1 Yarnah, NW SW NE section 36-10-7, total depth 3,600 feet, potential 1,352 bbls.

First reports of new activity in Seminole County: Lynch and others No. 1 Swan, NW NW NE section 24-5-5, an old well, rigging up standard tools; W. D. Grisso and others No. 2 Orwig, SW SE SE section 15-6-6, cellar and pits; Commercial Drilling Co. No. 1 Huddleston, NW SW NE section 32-7-6, moving in rig; Sinclair Prairie Oil Co. No. 6 Harjo, SE SW SE section 31-8-8, an old well, plugged back and preparing to shoot at 2,880 feet.

Pontotoc County

E. H. Moore No. 9 Smith B, SW SE SE section 25-2n-6, Fitts field, Pontotoc County, flowed 330 bbls. of oil gross in two and one-half hours after acid treatment and made potential of 2,987 bbls. Top of Hunton lime was 3,360 feet, total depth 3,635 feet.

Other recent completions in the Fitts field: E. H. Moore No. 15 Akers, NE SW NE section 36-2n-6, Hunton lime 3,560 feet, total depth 3,860 feet, acidized, flowed 455 bbls. of oil in one and one-half hours, potential 2,745 bbls. Same operator's No. 1 Statler, SW cor. section 34-2-7, Hunton 3,790 feet, total depth 4,145 feet, flowed 111 bbls. in 24 hours. Navarro Oil Co. No. 4 Horn, SE NE NE section 22-2-7, Hunton 3,888 feet, total depth 3,914 feet, flowed 291 bbls. of oil in one and one-half hours, potential 3,470 bbls.

Magnolia Petroleum Co. No. 2 Lewis, SE SW SW section 19-2-7, total depth 4,345 feet, acidized, flowed 215 bbls. in one hour, potential 812 bbls. Same company's No. 8 Norris, NE SW NE section 25-2-6, Gilcrease sand 1,791 feet, total depth 1,808 feet, produced 13,000,000 feet of gas. Same company's No. 32 Metropolitan Life, SW NW NE section 27-2-7, Cromwell sand 2,475 feet, total depth 2,575 feet, flowed 312 bbls. of oil in 12 hours.

Loual Drilling Co. and others No. 7-A Harden, NE NW NW section 30-2-7, Hunton lime 3,675 feet, total depth 3,945 feet, acidized, potential 1,020 bbls. of oil. Phillips Petroleum Co. No. 18 Norris, SE SW SW section 25-2-6, Hunton 3,465 feet, total depth 3,678 feet, potential 2,736 bbls. Burke-Greis Oil Co. No. 8 Chambers, NE NE NW section 36-2n-6, total depth 3,784 feet, potential 3,352 bbls. of oil.

Skelly Oil Co. No. 3 Akers, SE SW NE section 36-2-6,

RYERSON STEEL

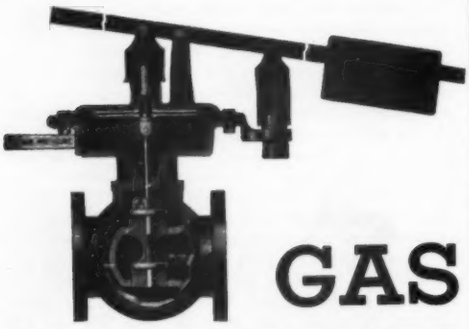
IMMEDIATE STOCK SHIPMENT

Bars, structurals, rails, sheets, plates, special alloy and tool steels, stainless steel (Allegheny metal) sheets, bars, etc., shafting, welding rod, babbitt, boiler tubes and fittings, wire, reinforcing bars, pipe, copper, brass, turnbuckles, metal working tools, etc.

Write for the Ryerson Stock List.

JOSEPH T. RYERSON & SON, INC. Plants at: Chicago, Milwaukee, St. Louis, Cincinnati, Cleveland, Detroit, Buffalo, Boston, Philadelphia, Jersey City. Offices at: Tulsa, Kansas City, Minneapolis.

DAVIS



GAS

BACK PRESSURE VALVES

1. Convertible for either vacuum or back pressure—merely by reversing counterweight.

2. Weatherproof construction—protects diaphragm assembly and dashpot.

3. Extremely sensitive. Retains high accuracy regardless of flow velocity.

4. Interchangeability of diaphragms and outside trim reduces stock of spare parts required.

5. Corrosion resistant. Requires minimum of attention or maintenance.

6. Universally accepted. Used by prominent producers in all sections of the country.

7. Quick delivery. Complete range of standard sizes carried in stock.

DAVIS REGULATOR CO.

2543 S. Washtenaw Ave., Chicago, Ill.

Westcott & Greis, Inc., Mid-Continent Representatives
Tulsa, Dallas, Houston

Bert W. Paul, West Coast Representative, Los Angeles

total depth 3,949 feet, potential 4,587 bbls. of oil. Fleetborn Oil Corp. No. 2-A Lewis, SW SE SW section 19-2-7, total depth 3,975 feet, potential 1,861 bbls. Magnolia Petroleum Co. No. 2 Norris, SW SE NE section 21-2-7, total depth 3,765 feet, potential 541 bbls. Bishop Oil Co. No. 1-B Simpson, NW SW NW section 28-2-7, total depth 2,580 feet, flowed 100 bbls. of oil daily. E. H. Moore No. 1 Schauers, NW SW NW section 29-2-7, total depth 1,832 feet, pumped 72 bbls. of oil daily. Same operator's No. 8-B Smith, SE NE NW section 31-2-7, total depth 4,375 feet, potential 801 bbls. of oil.

Carter Oil Co. No. 1 Nix, C W half SW NE section 1-1n-7e, Jesse area, topped Hunton lime at 4,000 feet, total depth 4,020 feet, was acidized and flowed 502 bbls. of oil net in 18 hours.

Other Pontotoc County completions: Campbell No. 2 Owensby, SE SW SW section 21-3-4, total depth 287 feet, dry and abandoned. Stanolind Oil & Gas Co. No. 3 Allen, NE SE NE section 32-5-5, total depth 2,590 feet, acidized, pumped 5 bbls. of oil net and 23 bbls. of water daily. Kilbourne No. 1 Factor, NW SW SE section 25-5-7, temporarily abandoned at 1,105 feet, total depth. American Oil & Refining Co. No. 1 McClure, NW NW SW section 9-4-6, total depth 2,733 feet, abandoned. Sinclair Prairie Oil Co. No. 2 Farney, CSL NW SW section 28-5-8, total depth 949 feet, swabbed 26 bbls. of oil daily.

New work in Pontotoc County: Mid-Continent Petroleum Corp. No. 8 Statler, SE NW SW section 2-1n-7, cellar and pits; Mabee Consolidated Corp. No. 4 Smith, SW SW NW section 28-2-7, drilling at 216 feet; Bishop Oil Co. No. 5-B Simpson, NE cor. section 28-2n-7, cellar and pits.

Oklahoma County

The only completion in Oklahoma County was Ohio Oil Co. No. 3 Messer, SW NW SW section 32-14-3w, Edmond field. Top of second Wilcox sand was 6,685 feet, total depth 6,715 feet. On potential test it flowed 484 bbls. of oil in four hours, making potential of 2,904 bbls.

Ohio Oil Co. No. 6 McMillan, NW SW SW section 31-14-3w, and No. 7 McMillan, SW cor. section 31-14-3w, were abandoned locations. Gulf Production Corp. of Oklahoma No. 1 Capitol, NW SE SW section 15-12-3w, was an abandoned rig.

New work in Oklahoma County: Clark & Co. No. 1 Baum, NW NW NW section 23-12-3w, rigging up rotary; J. L. Wilson No. 1 School Land, SE SE NE section 35-12-3w, drilling at 4,430 feet; Transwestern Oil Co. and others No. 1 Meeker, NW cor. section 29-13-3w, an old well, rigging up rotary.

Noble County

Phillips Petroleum Co. and Shell Petroleum Corp. No. 13 McCaughtry, SW NW NE section 21-23-2w, Billings field, Noble County, topped Wilcox sand at 4,280 feet, total depth 4,310 feet, flowed 515 bbls. of oil in six hours, making potential of 2,003 bbls.

Sinclair Prairie Oil Co. No. 2 Glockler, NW NE SE section 32-20-2w, was a location. Continental Oil Co. No. 6 Conway, SE SE SW section 16-23-2w, was building rig.

Logan County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 7 Pfeiffer, SW cor. section 33-20-2w, Lucien field, Logan County, had Wilcox sand at 4,865 feet; second Wilcox 4,925 feet, total depth 5,078 feet. It flowed 1,553 bbls. of oil in 12 hours, making potential of 2,920 bbls.

One new operation in Logan County was reported at Mid-Continent Petroleum Corp. No. 2 Bulling, SE NE NE section 5-19-2w, location.

Okfuskee County

Ark Royalty Co. No. 4 McIntosh, NW NW NE section 19-10-9, Olympic field, Okfuskee County, had Senora sand at 1,823 feet, total depth 1,850 feet, was shot and pumped 75 bbls. of oil in 24 hours. Sinclair Prairie Oil Co. No. 13 Fisher, NE NW SW section 19-10-9, total depth 1,896 feet, swabbed 120 bbls. of oil in 24 hours.

T. P. Palmer No. 1 Wind, SW NE SE section 36-11-9, was dry and abandoned at 3,750 feet, total depth.

New work in Okfuskee County: Earl Evans and C. D. Morris No. 3 Gooden, SE NW NW section 36-10-8, rig; Sinclair Prairie Oil Co. No. 14 Fisher, NW NE SW section 19-10-9, rig; Palmer Oil Corp. No. 1 Welty, SE cor. section 2-12-7, wildcat, spudded.

Lincoln County

Sun Oil Co. No. 2 Aranwine, NW SW SE section 35-15-2e, North Wellston area, Lincoln County, had first Wilcox sand at 5,073 feet, total depth 5,085 feet, flowed 624 bbls. of oil in six hours, and made potential of 2,244 bbls.

Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1 Sporn, NE NE SE section 20-17-3e, Sporn area, found first Wilcox sand at 4,565 feet, total depth 4,597 feet, and flowed 164 bbls. of oil in 24 hours.

Other recent Lincoln County completions: Amerada Petroleum Corp. and others No. 1 Stewart, NE SE NE section 15-13-6, total depth 4,280 feet, 308 bbls. of oil. Same operators' No. 2 Crawford, NW NW SE section 35-15-2e, total depth 5,125 feet, potential 1,257 bbls. of oil.

Deep Rock Oil Corp. No. 1 Eakers, NE SE SW section 35-15-2e, was a rig.

Coal County

Continental Oil Co. No. 1 King A, NW SE NE section 26-1n-8, southeast of Jesse but in Coal County, plugged back from 1,752 feet, total depth, to 865 feet and swabbed 5 bbls. of oil daily, completed.

Hughes County

Winona-Jarvis-Holmes No. 1 Jackson, SE NW NW section 20-7-8, Hughes County, had Booch sand at 2,907 feet, total depth 2,951 feet, swabbed 94 bbls. of oil in 24 hours, was shot, and swabbed 184 bbls. in 24 hours. Empire Oil & Refining Co. No. 1 fee, NE NW SW section 20-7-8, found Booch sand at 2,858 feet, total depth 2,943 feet, was shot and swabbed 162 bbls. of oil in 24 hours. Smith and others No. 1-A Scroggins B, SW SW NE section 20-7-8, was bottomed at 2,934 feet and flowed 240 bbls. of oil in 24 hours.

Potco Oil Corp. No. 1-A Dixon, SW NE NW section 12-9-8, an old Hughes County well, was rigging up to deepen.

Osage County

Completions in Osage County: L. E. Mertz No. 7-A Osage, SE cor. section 8-21-9, was a 2-bbl. pumper at 314 feet. Same operator's No. 8-A Osage, SE cor. section 8-21-9, total depth 316 feet, 7 bbls. of oil daily. Pure Oil Co. and Sinclair Prairie Oil Co. No. 175 Osage, SE NW NE section 5-23-8, total depth 760 feet, pumped 77 bbls. of oil in five and one-half hours. Lewis Production Co. No. 4 Osage, SE SE SW section 28-24-7, Bartlesville sand 2,573-2,659 feet, total depth, flowed 194 bbls. of oil in 24 hours. Wolverine Oil Co. and others No. 50 North Avant Unit, SE SE NW section 31-24-12, input well at 1,756 feet, total depth. Indian Territory Illuminating Oil Co. No. 446 Osage, SE SW SW section 21-27-11, Arbuckle lime 2,141 feet, total depth, 4,000,000 of gas.

New work in Osage County: Lewis Production Co. No. 5 Osage, SW SE SW section 28-24-7, location; Indian Territory Illuminating Oil Co. No. 88 Osage, 1,320 feet north of the south line and 810 feet east of the west line, SW section 13-24-9, old well, cleaning out; same company's No. 350-2 Osage, NE SW SW section 27-25-8, old well drilling deeper; Barnsdall Oil Co. No. 7 Osage, NE SE NE section 35-25-11, set 8-inch casing at 708 feet, waiting; Pure Oil Co. No. 25 Osage, NW section 14-27-10, an old well being deepened.

Creek County

Reliance Oil Co. No. 16 Berryhill, NE NW NW SE section 9-17-12, Creek County, flowed 10 bbls. of oil daily at 1,621 feet, total depth. Jo-Gail Oil Co. No. 1-A Edwards, NW NE SE section 28-18-12, was dry and abandoned at 1,770 feet, total depth. C. O. Buckles No. 3 fee, C NW NE section 22-18-8, was dry and abandoned in Bartlesville sand at 2,677-83 feet, total depth. Commercial Drilling Co. No. 1-A Cordell, NW SE SW section 17-19-9, was dry and abandoned at 2,400 feet, total depth, in shale. Missner & Coffee No. 1 Anthis, C SE SW section 15-17-11, topped Wilcox sand at 2,452 feet, had a hole full of water and was dry and abandoned at 2,500 feet, total depth.

Five new operations were reported in Creek County: Pure Oil Co. No. 10 Richards, NW NW SE section 4-17-7, old well being deepened, drilling on iron at 2,663 feet; E. R. Black and others No. 1 Anthis, NE NE SE section 22-18-9, rigging up machine; Hayden & Hayden No. 1 Washington, SW SW NW section 13-19-9, location; Gregg Sawyer No. 2 Jackson, NW NE SE section 14-19-9, drilling at 500 feet; Sinclair Prairie Oil Co. No. 4 Oates, SW SE NE section 14-19-9, location.

Okmulgee County

Lease Investment Co. No. 2 Field, NW SE NW section 16-14-11, Okmulgee County, total depth 2,438 feet, swabbed 50 bbls. of oil daily. Bingham & Hewitt No.

2-A McMillan, NW SW NW section 34-14-14, pumped 3 bbls. of oil daily at 1,220 feet, total depth. Heinrichs No. 1-A McKinney, C E half NW SE section 3-14-14, was dry and abandoned at 785 feet, total depth. Walter L. Dodge No. 7-A Almy, NW NW SW section 11-15-14, was dry and abandoned at 1,516 feet, total depth.

First reports of new work in Okmulgee County: Hennessey Oil Co. No. 7 Dollinson-Orex, C NW SE section 33-12-12, location; John Penrod No. 2-A Doyle, C NE SW section 15-13-14, material on ground; Acme Supply Co. No. 1 Reeder, C N half NW NW section 29-14-11, spudded; B. & H. Oil Co. No. 1 Kennedy, SW cor. section 34-16-13, location.

Tulsa County

Johnson Oil Refining Co. No. 5 Grimes, SW NE SW section 31-19-10, Tulsa County, topped Red Fork sand at 2,239 feet, total depth 2,292 feet, and swabbed and flowed 118 bbls. of oil in 24 hours. Sand Springs Home and others No. 1-A Quinlan, C W half SE NW section 31-18-13, was dry and abandoned at 3,003 feet, total depth, in Arbuckle lime.

Wagoner County

Oklahoma Oil Corp. and others No. 4 McKay, NE SW NW section 13-16-15, Wagoner County, was dry and abandoned at 1,132 feet, total depth.

Muskogee County

W. B. Pine No. 1-B Mathews, CWL NE section 19-15-15, Muskogee County, swabbed 20 bbls. of oil and was completed after plugging back from Wilcox sand at 1,868-1,914 feet, total depth, and shooting at 1,357-67 feet.

Atoka County

C. F. Dillingham No. 3-A Redden, SE SW SW section 19-1n-15, Atoka County, was dry and abandoned at 1,320 feet, total depth.

Payne County

Deep Rock Oil Corp. and others No. 1 Harris, SE SW NE section 9-18-5, an old Payne County well, was deepened from 2,885 feet to 3,598 feet, was shot and swabbed and flowed 180 bbls. of oil in 24 hours.

Home Gas Co. No. 1 Blanken, NE cor. section 32-19-5, was location for a new test in Payne County.

Carter County

Magnolia Petroleum Co. No. 8 Woodworth, SW SE SE section 32-3s-3w, Carter County, total depth 1,143 feet, pumped 51 bbls. of oil in 24 hours. Turman Oil Co. No. 13 Rexroat, SE NE SW section 10-4s-2w, total depth 2,089 feet, pumped 102 bbls. of oil and 30 bbls. of water in 24 hours. Shell Petroleum Corp. No. 52 McClure, SE NE SW section 5-4s-3w, total depth 1,127 feet, plugged back to 1,116 feet, pumped 4 bbls. of oil daily. Same company's No. 53 McClure, NW NE SW section 5-4s-3w, was completed as a 41-bbl. pumper at 1,097 feet, total depth. Sinclair Prairie Oil Co. No. 24 Lowman, SW NW SE section 9-4s-3w, was completed as a 15-bbl. pumper at 1,131 feet, total depth.

C. F. Dillingham No. 1 Evans, NW NW SW section 12-1s-3w, was location for a wildcat in Carter County.

Cotton County

Shasta Oil Co. completed a 15-bbl. pumper at No. 16 Slogan, SW NW NE section 2-2s-10w, Cotton County, at 2,124 feet, total depth. Same company's No. 5 School Land, NW SE NE section 36-1s-10w, failed to find sand and was abandoned at 2,300 feet, total depth.

Bowers & Wise No. 1 Pendergraft, NW SE SW section 4-4s-12w, Cotton County, was building derrick.

Jefferson County

Palmer and others No. 4 Barrett, NE SW SW section 19-6s-5w, Jefferson County, total depth 1,524 feet, pumped 5 bbls. of oil daily.

Long, Yingling & Lauck No. 21 Seay, SW SW SE section 3-7s-5w, Jefferson County, had spudded.

Jackson County

Gulf Oil Corp. No. 5 Edwards, NE NE SE section 3-1n-20w, Altus area, Jackson County, had Cisco lime at 1,630-33 feet, total depth, and pumped 20 bbls. of oil, with 1,500,000 feet of gas.

Various First Reports

Rischer & Clark No. 1 Brown, NE SE NE section 15-7-4, Pottawatomie County, an old well, deepened from 3,650 feet to 3,996 feet, plugged back to 3,992 feet, acidized and pumped 50 bbls. of oil in 24 hours. Roy S. Nash and others No. 1 Miller, C N half NE SE section 29-6-3e, was location for a Pottawatomie County wildcat.

In Garvin County, Cox & Hamon No. 4 Harris, NE SW NW section 32-1n-3w, was a location. Petroleum Investment Co. No. 3 Harkrider, SW SE SE section 11-1n-3w, an old well, was deepened from 1,512 feet to 1,592 feet, and pumped 18 bbls. of oil in the first seven hours.

In Stephens County, Helmerich & Payne No. 1 Wade A, NE SE NW section 12-1n-5w, was a cellar. Same operators' No. 1 Wade B, NW NW SE section 12-1n-5w, was building derrick.

In Kiowa County, Hughes & Reese No. 1 Fultz, SE cor. section 10-6-18w, was a machine. It was a wildcat.

In Beckham County, Consolidated Gas Co. No. 1 Kinsley, C NE SW section 10-9-25w, was a location.

East Texas Fields

(Continued from Page 74)

minutes; No. 23-B King, 3,462-85 feet, 25 bbls. in 20 minutes. Southport Petroleum Corp. No. 1 I.&G.N. R.R., 3,518-30 feet, 9 bbls. per hour on air lift. Stanolind Oil & Gas Co. No. 7 Clayton, 3,523-81 feet, 67 bbls. per hour. Sun Oil Co. No. 24 Morton, 3,458-65 feet, 50 bbls. in 42 minutes; No. 25 Morton, 3,479-86 feet, 51 bbls. per hour. R. H. Vice No. 6 Wells, 3,655-56 feet, 41 bbls. in 30 minutes; No. 5 Wells, 3,650-51 feet, 50 bbls. in 30 minutes.

Rusk County

British American Oil Co. No. 6 Thompson, 3,650-55 feet, 40 bbls. in 30 minutes. Cameron & Tucker No. 2 Gill, 3,623-24 feet, 30 bbls. in 30 minutes. Gulf Oil Corp. No. 20 Sexton, 3,639-95 feet, 30 bbls. per hour. Magnolia Petroleum Co. No. 12 Brox, 3,597-3,660 feet, 20 bbls. in 30 minutes; No. 15 Wills, 3,683-84 feet, 20 bbls. per hour. Merco Production Co. No. 8 Futch-Cooker, 3,667-68 feet, 20 bbls. in 30 minutes. Retsel Drilling Co. No. 3 Taylor, 3,593-3,616 feet, 40 bbls. in two hours on pump. British American Oil Co. No. 8 Murphy, 3,639-49 feet, 50 bbls. in 30 minutes.

Davis & Hart No. 5-C Perry, 3,668-77 feet, 21 bbls. in 35 minutes. F. W. Fisher No. 17-B Eaton, junked and abandoned 2,436 feet. Humble Oil & Refining Co. No. 22 Mullikin, 3,642-3,725 feet, 50 bbls. per hour. Johnson & Olson No. 20 Powers, 3,707-10 feet, 70 bbls. in 35 minutes. Ohio Oil Co. No. 4 Rollins, 3,630-50 feet, 18 bbls. in 15 minutes. Stanolind and Pure Oil Co. No. 73 Siler, dry and abandoned 3,799 feet. Sutton & Hawkins No. 5 Vinson, 3,616-31 feet, 20 bbls. in six hours on pump.

Smith County

Magnolia Petroleum Co. No. 31 Irion-Wright, 3,672-78 feet, 23 bbls. in 15 minutes. Sun Oil Co. No. 2 Seale, 3,746-47 feet, 20 bbls. per hour. Wheelis Oil Corp. No. 13 Smith, 3,691-92 feet, 20 bbls. in 12 minutes.

Upshur County

Dean Brothers No. 9 Victory, 3,570-92 feet, 50 bbls. per hour. P. H. Pewitt No. 7 Jones, 3,814-15 feet, 20 bbls. in 30 minutes. Rancho Oil Corp. No. 16 Edwards, 3,673-89 feet, 130 bbls. in two hours.

Kansas Fields

(Continued from Page 71)

Huff, NW NW SW section 29-25-14, total depth 1,442 feet.

Elk County

Diller Oil & Gas Co. No. 6 Key, C N half SW NW section 25-31-10, Key pool, Elk County, had Oswego lime at 1,646 feet, total depth 1,664 feet, plugged back to 1,646 feet, acidized and pumped 40 bbls. of oil daily.

Hicks Drilling Co. No. 5 Lewis, C S half S half SE section 35-31-10, had Siliceous lime at 2,304-07 feet, total depth, and was completed as a 50-bbl. pumper.

Chautauqua County

Completions in Chautauqua County included three gas wells and a trio of failures. Wallace and others No. 1 Shouse, SW SW NE section 2-32-12, total depth 606 feet, produced 750,000 feet of gas. Sinclair Prairie Oil Co. No. 1 Kirschner, SE SE SW section 32-33-11, had Siliceous lime at 2,069 feet, total depth 2,119 feet, plugged back to 1,755 feet and produced 3,000,000 feet of gas. Same company's No. 25 Moore, NW NE NW section 3-34-11, had Mississippi lime at 1,680 feet, total depth 1,709 feet, plugged back to 1,695 feet and produced 600,000 feet of gas.

The failures were: Hugh & Wentz No. 1 Wells, SE

● The MacClatchie Wall Scraper gives superior performance on every type of underreaming job . . . . . and the bigger the job the greater the plus performance, because this scraper evenly spreads the cutting load over *three husky* cutters. This means:

This, the Grand daddy of the MacClatchie Scraper Family, safely underreams up to 30" in diameter, yet will readily pass through 11¾" casing.

. . . . Less abrasive wear on each cutter and more full gauge hole per run.

. . . . Less strain per cutter and a greater factor of safety against blade breakage.

. . . . Smoother rotation of drill string without destructive vibration and jarring.

. . . . An absolutely cylindrical hole that is out to gauge at all points.

But that's not all! MacClatchie engineers have put other plus performance features into this scraper too, such as:

TREMENDOUS BODY STRENGTH . . . . achieved by the use of alloy steel correctly shaped and properly heat-treated. Note how the shape of the body reinforces the blades!

POSITIVE CUTTER EXPANSION . . . . that gives an unmistakable signal at the rig floor when the blades are expanded. No worry, no wasted round trips. You know it's working for you every minute it's in the hole!

DUO-ACTION CIRCULATION . . . . that provides positive circulation to each individual cutter PLUS additional circulation right through the body to the pilot bit below. This is invaluable when working through bridges and other obstructions in the hole where circulation on the pilot bit is an absolute necessity.

No matter what your scraping job the MacClatchie will do it quicker, smoother and with greater accuracy. Call your MacClatchie representative today for complete information!

★

MacCLATCHIE MFG. COMPANY

COMPTON, CALIF. HOUSTON, TEXAS

Export: Geo. R. Woods, 17 Battery Place, New York City

SE NW section 10-33-10, hole full of water in Siliceous lime at 2,315-28 feet, total depth; J. B. Reagan No. 1 Severns, NW NE NW section 16-34-12, total depth 900 feet; and C. L. Carlock and others No. 1 Black, SW SW NW section 29-32-13, total depth 2,008 feet.

Central West Fields

(Continued from Page 82)

second sand. The total depth was 930 feet, and the well gauged 330,000 feet of gas, with a rock pressure of 315 pounds.

In Meigs County, Proffitt and others No. 1 Ked Leslie, section 21, Lebanon Township, had an open flow of 738,000 feet of gas naturally in the first Berea sand at 2,035 to 2,042 feet. The well had a rock pressure of 680 pounds. In Sutton Township, same county, Ohio Fuel Gas Co. No. 1 N. T. Rose was not considered to be of commercial size. The well made 18,000 feet of gas naturally in the first Berea sand, was shot into an open flow of 42,000 feet, and finally abandoned. The sand was encountered at 2,058 to 2,062 feet, with a total depth of 2,075 feet.

In section 13, Ames Township, Athens County, Carpenter & Glazier No. 19 J. and J. Smith made 7 bbls. of oil during the first 24 hours after it was shot in the first Cow Run sand. The sand was found at 299 to 317 feet. In Fraction 23 of the same township and county, D. T. Orndoff No. 1 Dowe E. Kasler was completed as a gas well with an after-shot open flow of 89,000 feet in the second Berea sand at 1,412 to 1,426 feet. The rock pressure of the well was 630 pounds. In section 30, Rome Township, Athens County, Gibson and others No. 1 Sarah Jane Copeland made 350,000 feet of gas in the second Cow Run sand at 737 to 767 feet. The rock pressure was 265 pounds

In Washington County, Beardmore Gas Co. No. 2 Warren M. Rauch, section 34, Ludlow Township, was a small gas well in the Injun sand at 1,219 to 1,370 feet, with a total depth of 1,404 feet. A show of gas was reported in the lime at 1,150 feet, but the total open flow of the hole was only 31,250 feet. Otto Heldman and others No. 1 Marion Epler, section 19, Liberty Township, of the same county, made 134,000 feet of gas in the second Cow Run sand at 970 to 1,010 feet. The well was drilled through the third Salt sand, which was encountered at 1,085 to 1,110 feet, and was dry. The total depth of the well was 1,125 feet, with a rock pressure of 285 pounds.

EASTERN KENTUCKY

ASHLAND, Ky., July 19.—Lee County operations take the spotlight in Eastern Kentucky this week with five oil-well completions, the largest with a daily flow of 25 bbls. a day. One other oil-well completion was reported with a meager flow of 3 bbls. per day.

Price Fraley and others, drilling No. 4 on the Andrew Combs land on Billie's Fork in the Big Sinking district of Lee County, completed it with a flow of 25 bbls. daily. Four other completions were reported in this district with Wittmer Oil Co. getting a daily flow of 10 bbls. in No. 2 on C. J. Tipton's farm in Billie's Fork. The other completions in this district reported a daily flow of 5, 5 and 4 bbls. per day, respectively.

The B. & B. Oil Co. completed No. 6 on the Frank Rogers farm, Mount Springs, in the South Fork district in Powell County, with a flow of 3 bbls. of oil per day.

Frank Fitch No. 1 on the Crabtree & Sales land on Cave Branch in the Big Sinking district of Lee County is a dry hole, the first report of this kind in the past three weeks.

Maxon gas in Inland Gas Corp.'s well No. 1 on the E. A. Hammonds farm, on the Right Fork of Troublesome Creek, played out after shot a week ago and the firm decided to drill on down to shale

The complete report of operations in this area for the past week is as follows:

In Magoffin County the Ashland Oil & Refining Co. reports that A. V. Hoenig, No. 34, Green Rice land, is core-drilling sand. This well is on Litteral Fork, in the Wheelersburg district. Browning Brothers No. 1 on W. H. Conley and C. C. Meade land, Pigeon Creek, same district, is core-drilling sand. In the Burton district, Bed Rock Petroleum Co. is down 860 feet in No. 29, E. R. Caudill land.

In Lee County, Big Sinking district, Rush Cable has completed No. 5, Lafayette Noe land, on Little Sinking Creek, with a flow of 5 bbls. of oil per day. Buckner & Lyle and others have completed No. 1, Payne & Whitneck land, nearby, at 875 feet, with a flow of 5 bbls. oil per day.

Henry Day No. 1, top of Bald Rock Hill, Popular Thicket land, started at 4 bbls. of oil daily.

Evans Oil & Gas Co. is continuing drilling No. 13 on J. F. Raines farm, also on Billie's Fork. The Marietta Oil Co. is drilling No. 1 on W. T. Smith farm nearby. South Penn Oil Co. completed well No. 103 on Flahaven Land Co.'s land in Town Hollow with flow of 2 bbls. of oil per day.

Hupp and others have rig up on G. W. Greeley farm on Duck Fork in the Ida May district of Lee County.

In Powell County, the B. & B. Oil Co. completed No. 6 on Frank Rogers land, Mount Springs, a 3-bbl. well. Mrs. Agatha Wireman is down 200 feet in well No. 18 on J. M. Townsend farm on South Fork.

Kentucky-West Virginia Gas Co. reports two operations in Knott County as follows: Well No. 5,221 is down 3,060 feet, in shale, on the Isaac Slone farm, on Caney Fork, and is moving in at No. 553, Isom Gibson farm, on Jones Fork of Caney Creek.

Inland Gas Corp. is down 2,170 feet in Big Lime in No. 1 E. A. Hammonds, having decided to continue drilling after Maxon gas played out. This well is on the Right Fork of Troublesome Creek. The same firm has reached the 1,978-foot mark in well No. 2, R. C. Kilgore land, nearby. Inland is down 575 feet in well No. 1, Ritter Short land, on Wiley Fork of Troublesome Creek.

There are two operations reported from Floyd County, both Kentucky-West Virginia Gas Co. wells, with the 2,312-foot mark reached in well No. 552. Elizabeth Sellards land on Levisa Fork. The drilling is continuing in shale. Well No. 5,224 on Burris Herald land, on Cow Creek, is at the 1,215-foot level, in slate.

In Martin County, Kentucky-West Virginia Gas Co. No. 5,223 on C. W. Preece land on Coldwater Fork is down 1,344 feet, in slate. The same firm is building road to well No. 5,225 on the same land.

West Texas Fields

(Continued from Page 77)

10 Magnolia B, 291-311 feet, 5 bbls. Sussex Oil Corp. No. 1 C. J. Shumake, 1,129-45 feet, 50 bbls.

Cooke County

Pace Petroleum Co. No. 7 R. E. Aldridge, 1,118-67 feet, 75 bbls. Schermerhorn Oil Co. No. 8 M. Kessler, 1,278-95 feet, 70 bbls. Seitz-Comegys & Seitz No. 1 E. J. Doughty, 1,652 feet, dry.

Foard County

Texas Co. No. 12 L. K. Johnson, 3,509-3,960 feet, 750 bbls.

Montague County

Arco Oil Co. No. 11 Mrs. M. H. Salmon E, 1,611-29 feet, 100 bbls. Continental Oil Co. No. 36 N. J. Howard, 1,200-22 feet, 35 bbls. Sinclair Prairie and others No. 13 D. T. Holt, 1,634-66 feet, 290 bbls.

Wichita County

G. W. Cooper No. 47 J. L. and T. J. Waggoner, 1,893 feet, dry; No. 24 W. T. Waggoner C, 1,620-36 feet, 300 bbls. Douglas Production Co. No. 32 L. P. Douglas A, 943 feet, dry. Hawkins and others No. 1 Goetze, 433-44 feet, 2 bbls.; No. 2 Goetze, 418-25 feet, 6 bbls. Mogren & Anderson No. 1 C. A. Mertins, 1,605 feet, dry. Perkins & Cullum No. 33 T. L. Burnett and others, 1,371-82 feet, 15 bbls.; No. 34 T. L. Burnett and others, 1,603 feet, dry. George Proctor and others No. 13 Foster A, 2,072 feet, dry. Mrs. Jesse L. Pyle No. 6 Munger, 1,091-93 feet, 40 bbls. O. J. Richardson No. 3 J. L. and T. J. Waggoner, 625-34 feet, 3 bbls.

Wilbarger County

J. B. Baker, Jr. No. 1 W. T. Waggoner A, 2,389 feet, dry. Phillips Petroleum Co. No. 197 Waggoner Ranch, 3,056-70 feet, 2,000 bbls. Texas Co. No. 1 W. T. Waggoner B, 2,344-2,426 feet, 55 bbls.

Throckmorton County

Foster and others No. 1 R. H. Brown, 914-18 feet, 4,500,000 feet gas.

Young County

S. S. Alexander Oil Corp. No. 5 M. L. Clark, 830-45 feet, 5 bbls.; No. 6 M. L. Clark, 875 feet, dry. James B. Baker, Jr. No. 1 M. M. Burris, 999 feet, temporarily abandoned. Frank W. Bennett No. 1 R. V. Tidwell, 3,236-3,383 feet, 400 bbls. V. E. Ekholm, Trustee No. 1 J. J. Bauvousett, 637 feet, dry. B. P. Farris No. 1 Pickard, 2,840 feet, dry. F. H. E. Oil Co. No. 6 Mrs. Jennie K. Jeffery, 711 feet, dry. Hawkins & Glover No. 2 J. C. Rushing, 829-41 feet, 10 bbls.; No. 3 J. C. Rushing, 834-44 feet, 10 bbls. T. M. Hellams No. 1 Fred T. Cooper, 1,198 feet, dry. Hinson & Tidwell No. 4 S. D. Thompson, 3,755-3,824 feet, 1,350 bbls. Kimmell Lee & Co. No. 8 R. Campbell, 983 feet, dry. Lupton McLester No. 2 Median heirs, 3,700-40 feet, 110 bbls. E. R. Perkins No. 1 Mrs. Fay Clarke, 825 feet, dry. Piper & Wilson No. 4 Scott, 741-44 feet, 25 bbls. R. J. Watson No. 1 C. D. Bradshaw, 800 feet, dry. Henry Zweifel No. 1 E. S. Graham, 3,483-96 feet, 100 bbls.

PANHANDLE COMPLETIONS

Carson County

Magnolia Petroleum Co. No. 24 fee, 2,955-3,020 feet, shot, 782 bbls. on pump; No. 25 fee, 2,885-2,995 feet, shot, 407 bbls. on pump.

Empire Oil & Refining Co. No. 7 Deahl, 2,610-2,907 feet, 5,900,000 feet of gas; No. 4-E Magnolia, 3,041-97 feet, shot, 377 bbls. on pump. F. W. Dye and others No. 1 Holmes, 3,170-3,285 feet, shot, 471 bbls. on pump. Kewanee Oil & Gas Co. No. 11 Morgan, 3,180-3,288 feet, shot, 751 bbls. on pump. King Oil Co. No. 8 Volmert, 3,210-85 feet, shot, 497 bbls. on pump. Magnolia Petroleum Co. No. 8 Sailor, 3,165-3,264 feet, shot, 820 bbls. on pump. Stanolind Oil & Gas Co. No. 11-C Cobb, 3,270-3,326 feet, shot, 216 bbls. on pump.

Gray County

Dyck Oil Co. No. 4 Holmes, 3,270 feet, shot, 636 bbls. on pump. Empire Oil & Refining Co. No. 5 Crow, 3,230-79 feet, shot, 510 bbls. on pump.; No. 11 Cunningham, 3,250-3,316 feet, shot, 190 bbls. on pump. Gibson Oil Co. and others No. 1 Combs & Worley, 2,875-2,991 feet, shot, 322 bbls. on pump. Southern Exploration Co. No. 7 Baird, 3,205-57 feet, shot, 614 bbls. on pump.

Hutchinson County

Gulf Oil Corp. No. 70 Dial, 2,960-3,067 feet, shot, 299 bbls. on pump; No. 11 Pitcher, 3,140-3,213 feet, shot, 289 bbls. on pump. Stanolind Oil & Gas Co. No. 11-B Ware, 3,140 feet, shot, 256 bbls. on pump; No. 9 Moore, 3,100 feet, shot, 418 bbls. on pump; No. 5 Terry, 2,870-2,935 feet, shot, 667 bbls. on pump.

Amtex Petroleum Corp. No. 32 Lewis, 3,975-3,056 feet, shot, 569 bbls. on pump. Dolomite Production Co. No. 2 Perkins, 2,985-3,067 feet, shot, 704 bbls. on pump. Drilling & Exploration Co. No. 2 Pond, 3,000-3,100 feet, shot, 590 bbls. on pump. Stanolind Oil & Gas Co. No. 4-B Haile, 3,010-3,071 feet, shot, 237 bbls. on pump; No. 9 Moore, 3,000-3,100 feet, shot, 418 bbls. on pump; No. 5 Terry, 2,868-2,935 feet, shot, 667 bbls. on pump. Timms & Robinson No. 1 Haile, 2,944-88 feet, shot, 117 bbls. on pump.

Moore County

Continental Oil Co. No. 1 McDowell, 3,235 feet, 65,000,000 feet gas. Phillips Petroleum Co. No. 1 Purdy, 2,945-3,310 feet, plugged back to 3,258 feet, acidized, 46,000,000 feet gas; No. 1 Sturdy, 3,210 feet, acidized, 61,000,000 feet gas. Shamrock Oil & Gas Co. No. 1 Zwack-Barnsdall, 3,160 feet, 160,160,000 feet gas; No. 1 C. R. Jones, 3,307 feet, 13,604,000 feet gas; No. 1 Alice Sneed, 3,010 feet, 32,000,000 feet gas; No. 2 Alice Sneed, 2,908 feet, 31,830,000 feet gas; No. 3 J. T. Sneed, Jr., 2,665 feet, 131,869,000 feet gas.

Panhandle Eastern Pipe Line Co. No. 1-44 Sneed, 2,520-3,162 feet, 43,600,000 feet of gas.

Wheeler County

Ohio Oil Co. No. 5 Husselby, 2,442 feet, shot, 112 bbls. on pump.

Smith Brothers and others No. 9 Johnson, 2,532 feet, 1,017 bbls.

State's Leasing Policy Defined

The Mississippi State Leasing Commission has issued a statement on its future policy of leasing state tax lands. Many thousands of acres of forfeited lands are located in Mississippi, where lease and royalty trading is active.

Greek L. Rice, attorney general and secretary of the commission, stated the commission would lease to bona fide operators on the same terms as those prevailing in assembling a drilling block with other landowners involved. When the test well reaches minimum of 1,000 feet the state leases will then be validated. The first operator to receive state lands under this ruling was Cleve Love, who obtained 700 acres in George County near the wildcat well he is drilling.

North Louisiana, Arkansas

By MITCHELL TUCKER

DISAPPOINTING SHOWINGS IN SCHULER, ARKANSAS, FIELD

SHREVEPORT, La., July 19.—New completions in the Lodi extension area about 8 miles southwest of present Rodessa production, Marion County, Texas, headed weekly developments for the last seven-day period. Disappointing results were obtained in the coring of several wells in the Schuler field of Union County, Arkansas, serving to discount that field's potentiality.

RODESSA—LOUISIANA

Two deep exploratory tests on the Louisiana side of the Rodessa field now hold the center of interest, as both hope to establish production from levels lower than present producing zones.

Blackwell Oil & Gas Co. No. 3 Neugent, section 8-23-15, in the extreme northeastern edge of the field, has logged some saturation in a sand member in the Upper Travis Peak, and is now awaiting the arrival of casing, total depth 7,202 feet.

About 1 mile south of the townsite, R. W. Norton No. 1 Payne, section 27-23-16, is plugging back from its total depth of 11,486 and testing. Plug was set and drill stem test made at 10,600 feet through perforated tubing; only a small gas showing was logged. Hole has been plugged to about 9,500 feet and preparations are now being made to again perforate and test another possible producing zone as indicated on Schlumberger survey.

No completions were made during the week on the Louisiana side of Rodessa field.

RODESSA—TEXAS

Cass County

Three completions were made in the proven area on the Texas side of the Rodessa field last week, as follows:

Magnolia Petroleum Co. No. 7 W. M. Hall, J. N. Jackson Survey, flowed 322 bbls. in 24 hours through quarter-inch tubing choke, total depth 6,050 feet.

Ohio Oil Co. No. 19 R. P. Willis, S.F.I.W. Survey, flowed 14 bbls. hourly through quarter-inch tubing choke, total depth 5,957 feet.

United Production Co. No. 1 Threwer, J. S. Smith Survey, flowed at the rate of 70 bbls. daily, total depth 6,046 feet, after being jammed with gas.

Marion County

Marking the third completion in the Lodi area about 8 miles southwest of main Rodessa production, Arkansas-Louisiana Gas Co. No. 1 Allen Houston, A. D. S. Coy Survey, flowed 541 bbls. in 24 hours, quarter-inch tubing choke five hours, half-inch tubing choke three hours, and three-sixteenths inch tubing choke 16 hours, tubing pressure 515 pounds, casing pressure 1,620 pounds, gas volume 248,000 feet, total depth 6,076 feet.

Three new locations were staked last week in this area, bringing the total operations to six.

LOUISIANA

Bossier Parish

The search for oil production on the northeast flank of the Sligo oil and gas field, through the drilling of Producers Oil & Gas Co. No. 1 R. Johnson, NW NE section 5-17-11, was disappointing, as a test of the Pettit lime at total depth of 5,220 feet showed only slight oil and gas saturation. The hole has been abandoned. Oil production is being obtained from the Pettit lime along the southwestern flank of the Sligo structure.

Caddo Parish

T. B. Donnell No. 5 Stokeley pumped 5 bbls. per day initially from a total depth of 951 feet. Location is in section 5-20-16.

W. D. Ambrose abandoned two tests along the flank of the Caddo-Pine Island fields; No. 1-C Pender, section 11-20-15, at a total depth of 2,300 feet, and No. 1 Self in the same section at a total depth of 2,580 feet.

In the Pine Island area Stanolind Oil & Gas Co. No. 1 Lloyd, section 12-21-15, pumped 74 bbls. daily after a 1,500-gallon acid charge, total depth 1,609 feet.

W. J. Hunter and others No. 1 Stoer, wildcat test in the Keithville area, section 10-15-15, loomed as a possible gas and distillate field opener in the Upper Glen Rose underlying the anhydrite. After drilling to a total depth of 6,560 feet, the hole was plugged back for testing of upper showings. A drill stem test from 5,100 to 5,120 feet indicated good gas and distillate saturation, and preparations are now being made to acidize the formation before making production test.

Red River Parish

John Droppleman No. 1 Wilson, SW section 23-13-11, has been abandoned as dry, total depth 2,520 feet.

Claiborne Parish—Lisbon Field

Three completions were made last week at Lisbon, bringing the total producers to 52. Daily average production for the last seven days was 13,097 bbls.

Magnolia Petroleum Co. No. 3 English, N half SE NW section 31-21-5, flowed 263 bbls. in 18 hours through 44/64-inch tubing choke, total depth 5,283 ft.

Magnolia Petroleum Co. No. 2 H. E. Patton, section 36-21-5, flowed 246 bbls. in 15 hours on initial test, total depth 5,312 feet.

P. W. Woodruff No. 1-A McDonald, N half SE NE section 36-21-5, flowed 501 bbls. daily through 17/64-inch tubing choke, total depth 5,227 feet.

DeSoto Parish

Pullman Oil Co. (M. J. Grogan and associates) No. 1-A Ramsey, field opener in section 36-11-11, flowed 184 bbls. in 12 hours through three-eighths inch tubing choke, 7 per cent salt water, on official gauge, total depth 2,961 feet in the Woodbine sand. Three offset locations are now either rigging up or drilling to further test this newly discovered oil pool.

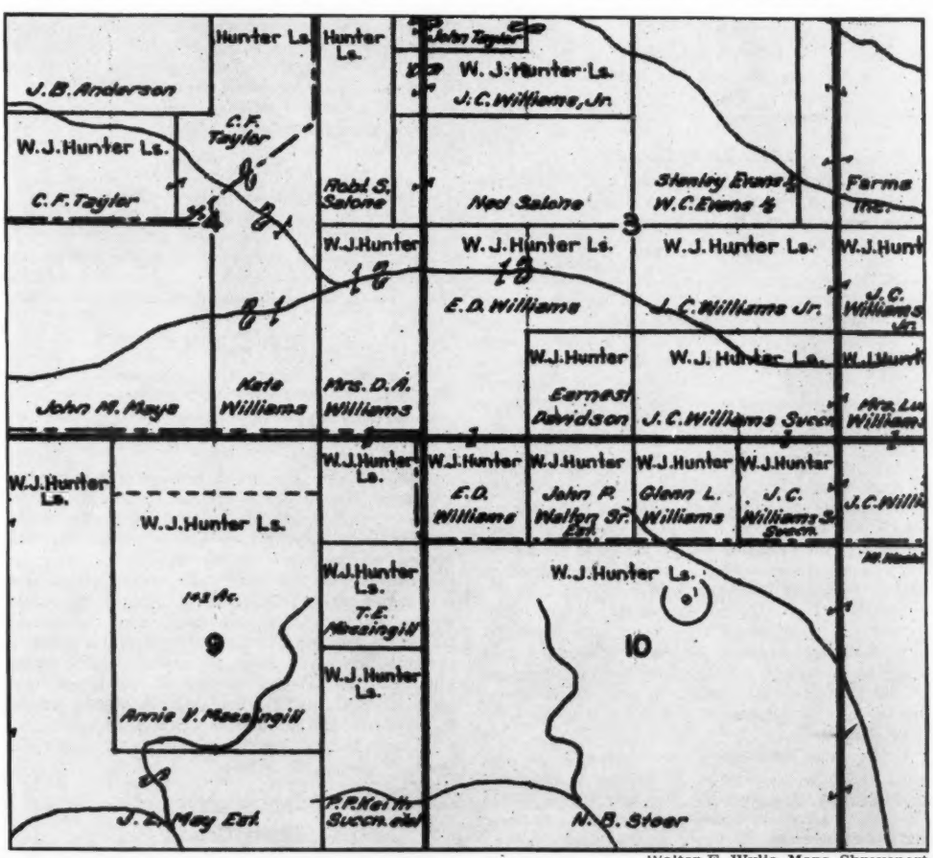
R. C. Payne No. 1 Harris, section 11-13-14, which has been temporarily shut down for several months at 3,000 feet, has been abandoned as dry.

Union Parish

A routine completion in the Monroe gas field, J.&H. Oil Co. No. 1-C Union, flowed 1,000,000 feet of gas, 1,000 pounds rock pressure, total depth 2,190 feet.

Lincoln Parish

After drilling to a total depth of 6,011 feet in Easton-Belmont No. 1 Dye, wildcat test of the North Simmsboro area in section 21-19n-4w, the hole is now being plugged back and tested at three possible producing zones as indicated on Schlumberger survey.



Walter E. Wylie, Maps, Shreveport

W. J. Hunter and others No. 1 Stoer, section 10-15n-15w, wildcat test in the Keithville area, 15 miles south of Shreveport, which has indicated itself a possible gas and distillate field opener on early tests. The well is now being acidized

Drill stem tests from 5,731-43 feet and at 5,040 feet both proved dry. A plug has now been set below the porous section just below the anhydrite at about 4,590 feet, and preparations are being made for a drill stem test of the zone logged from 4,582 feet to 4,594 feet.

Webster Parish

Bringing the total deep gas-distillate producers from the Bodcaw sand to 11, Magnolia Petroleum Co. No. 2 D. G. Cox, SW SE NE section 22-21-10, flowed 32 bbls. of distillate per hour with 5,000,000 feet of gas, tubing pressure 2,400 pounds, casing pressure 2,800 pounds, total depth 8,244 feet.

Cotton Valley Hearing

The Louisiana Department of Conservation held a public hearing on the proposed 160-acre ruling for the Cotton Valley field last week in Shreveport, which was attended by land owners in the field as well as operators, and was vigorously opposed by them.

The majority of the lease holders in the proven area of the 8,100-foot Bodcaw gas and distillate production advocated the wide spacing, and offered figures to show that closer spacing in that field would be unprofitable and result in the field not being drilled. It was brought out that an ultimate recovery per 40 acres would not exceed 2,300,000,000 feet of gas, and yield a revenue from the distillate produced with the gas of about $134,000. Cost of Cotton Valley wells to this depth average about $115,000.

A five-point recommendation was made to the Commissioner of Conservation by the majority of lease holders in the field, and was opposed by individual land owners and lease holders of smaller tracts:

(1) A 160-acre spacing rule, with provision that if exceptions are granted, a deduction in daily allowables would be made on an acreage basis.

(2) Restrict total daily gas field allowable to that quantity of gas that can be marketed and utilized without waste.

(3) Allow each deep well to produce that quantity of distillate which it will naturally make in the production of its allocated gas production.

(4) Allocation of total daily gas to be upon a 75 per cent acreage and 25 per cent productivity or bottom-hole pressure basis.

(5) Any wastage of gas to be expressly prohibited.

ARKANSAS

Calhoun County

I.P.B. Oil Corp. No. 1 Herrisberger, section 9-11-13, has been abandoned after setting surface pipe at 109 feet several months ago.

Little River County

M. E. Sanderson's wildcat test No. 1 Pinning, section 6-13-30, has been abandoned as dry, total depth 1,300 feet.

Miller County

E. H. Moore No. 1 Dale, section 24-15-26, deep test on the flank of the Garland City field, has been plugged and abandoned, total depth 7,310 feet.

Standard Oil Co. of Louisiana No. 1 Sarah Harvey, section 33-16-26 in the Fauke area, which was thought to be on favorable structure following geophysical mapping, found all beds running low and was abandoned at a total depth of 5,775 feet.

Union County—Schuler

Although the first four wells drilled in the Schuler field came in as large producers, the following six which were coring this week have apparently missed the bulk of the saturated section logged in the discovery well and those drilled immediately thereafter. A total of 84 feet of saturation was cored and drilled in one of the early wells, but all this was absent in the drilling out about one-quarter of a mile north. It is now the opinion that Schuler production in the Lower Marine occurs in a lenticular sand pinching out off the structure. Some exploration to the southeast may be done as that edge of production does not seem to be defined.

Operators at Schuler are now considering the feasibility of joining together in the drilling of a possible 9,000-foot test to explore the Big lime in top of the Permian. A known structure is at Schuler, and lower beds look attractive.

Alice-Sydney No. 1 Nancy E. Pewledge, SE SW SE section 7-18-17, about one-half mile to the north of present production, was one of the wells to miss the oil saturation. Drill stem test from 5,767 feet to 5,802 feet showed 30 feet of oil and 930 feet of salt water with mud in 30 minutes. Drilling continued to a total depth of 6,005 feet without encountering other impressive showings. This well has been temporarily abandoned pending decision to make the Big lime test.

Estimated Daily Production

Estimated daily average gross production in the week ending July 17:

NORTH LOUISIANA

Bellevue	740
Caddo light	4,085
Caddo heavy	2,570
Converse	815
Cotton Valley heavy	200
Cotton Valley light	*4,900
DeSoto and Red River	1,600
Elm Grove	355
Haynesville	3,085
Holly	130
Homer	2,510
Lisbon	13,095
Pleasant Hill	120
Rodessa	48,245
Sarepta-Carterville	340
Sligo	225
Sugar Creek	570
Urania	2,850
Zwolle	790
Total	87,325

SOUTH ARKANSAS

Champagnolle	1,455
El Dorado	2,020
Lisbon	280
Miller County	485
Nevada	740
Schuler	1,410
Smackover light	2,170
Smackover heavy	16,970
Stephens	575
Troy	580
Urbana	1,210
Total	27,895

Texas side of Rodessa field 37,430 bbls. daily.

*4,400 bbls. is distillate.

EAST TEXAS (Border Counties)

Panola County

Glassell & Glassell No. 1 Pierce and Chesbro, in the P. Soape Survey, are fishing for stuck drill pipe in their deep exploratory test in the gas-distillate area discovered by them several months ago. Prior to sticking the drill pipe a hard fight had been made to prevent cratering at several points out from the well as blowouts occurred several times throughout the high pressure formation in the Lower Glen Rose, through which this well has drilled in search of oil in lower beds.

A new oil well was completed for the Tacoma area of Panola County last week, Panola Oil Co. No. 1 S. W. Ray, W. B. Culver Survey, pumping 18 bbls. of 48 gravity daily, total depth 2,092 feet.

Shelby County

Portex Oil Co. has set surface casing at 160 feet at No. 3 W. R. Pickering, A. Hansen Survey, about 1 mile south of Joaquin and 700 feet south of No. 2 Pickering, recently completed as a gas-distillate producer. It is the plan to drill this test to a depth of 6,500 feet in search of possible oil accumulation down flank.

SOUTHEASTERN STATES

Geophysical activity in the southeastern states of Mississippi, Alabama and Florida continues through the summer months at an active pace. At the present time 10 crews are engaged mapping possible structures throughout the area.

Ohio Oil Co. is active a few miles southwest of Lexington, county seat of Holmes County, Mississippi. The Southern Natural Gas Co. sponsors a crew in eastern Warren County. A core drill outfit has completed several months work in the vicinity of Waycross, Georgia. Phillips Petroleum Co.'s torsion balance crew is working around Bassfield in Jeff Davis County, Mississippi, in what is commonly called the Hattiesburg area. Sun Oil Co.'s torsion balance unit continues to work along the Forrest and Jones county line. The Texas Co.'s reflection seismograph is employed between Purvis, and the Sun Oil Co.'s drilling wildcat in section 33-4n-15w, Lamar County, Mississippi. A gravimeter crew of Continental Oil Co. is working in Marion County, Mississippi.

MISSISSIPPI

Hinds County

The State of Mississippi No. 6 fee, section 26-6n-1e, and No. 7 fee, same section, both in the Jackson gas field on state owned lands, are preparing for drilling soon. Derrick has been built at No. 6, and well is rigging up.

Bolivar County

Phillips Petroleum Co. No. 1 Perthshire, section 2-24n-7w, wildcat in the extreme northwest corner of Mississippi, on a geophysically mapped structure, is now drilling sand and lime at 4,048 feet.

FLORIDA

Lake County

William G. Blanchard of Coral Gables, Fla., reports that his Oil Development Co. No. 2 Gulf Exploration Co., which is now testing upper formations, showed nothing but black sulfur water with heavy salt content, carrying the usual iron-sulfur scum and showing some B.S. The report that free live oil was noted on tests was incorrect.

Eastern Fields

(Continued from Pagek 68)

feet. The Fifty-Foot gas gauges 328,000 feet. In this district, Hope Natural Gas Co. deepened No. 7,738 Enoch C. Morgan to 2,766 feet, the Fifth sand, and it gauges 150,000 feet. In Mannington district, this company drilled No. 3 Levina Fettey and others to 3,432 feet, the Fifth sand, and it was dry.

In Pleasants County, F. R. Bail and others drilled a test on the W. A. McCush farm in McKim district to 2,018 feet through the Injun sand and it was dry.

In Ritchie County, Underwood Oil & Gas Co. completed No. 2 Katheline Underwood in Clay district in the Injun sand, depth 1,820 feet, gauging 800,000 feet.

In Wetzel County, Philadelphia Oil Co. abandoned but did not plug No. 1 Louisa Carney in Church district and has cleaned it out to 3,066 feet and is testing it.

Oriskany Gas Field

There was one completion in the Oriskany gas pool in Kanawha County. United Fuel Gas Co. completed No. 4,706 C. B. Graham in Elk district at 5,134 feet showing 4,327,000 feet. The top of the Oriskany sand was at 5,130 feet with gas at 5,131-34 feet and it may be deepened.

There were a number of new locations. In Elk district, Pond Fork Oil & Gas Co. located a test on the Crowder & Thomas lease 1¼ miles east of the Mollie Shafer gas well. Just east of the Henry A. Walker farm, Columbian Carbon Co. made a location on the Nora J. Fogarty farm.

In Poca district, Godfrey L. Cabot, Inc., made a location on the Katherine B. Jarrett farm on Poca River 1½ miles west of the J. E. and M. D. Good 20,000,000-foot well. This operator also made a location on the B. M. Dulany farm 1¾ miles northwest of Sissonville. Guy B. Ray made a location on the Emmett Thaxton farm one location southeast of the gas well on the Elmer Thaxton and others lease and one on the Harry Thaxton a location southwest of Elmer Thaxton well.

One mile north of the J. E. and M. D. Good well and just north of Sissonville, Godfrey L. Cabot, Inc., made a location on the Humphreys-Morton (W. E. Matthews) lease. One-half mile southwest of the Good well, United Fuel Gas Co. made a location on the J. C. and Aubrey Ray farm, No. 4,756. Spartan Gas Co. and West Virginia Gas Co. made a location on the Louisiana Legg farm offsetting the E. C. Humphreys gas well and a second one 1,500 feet to the north.

One-half mile north of the Facemyer gas well, United Carbon Co. made a location on the Harrison Miller farm in Poca district. East of Sissonville, South Penn Oil Co. on the T. H. Newhouse farm is drilling through the Corniferous lime.

Outside Deep Tests

The test of Carnegie Natural Gas Co. on the W. C. Patterson farm on the Burning Springs anticline in Burning Springs district, Wirt County, is drilling at 4,780 feet or 120 feet in the Corniferous lime. The lime is extremely hard and very little headway is being made. There was an oil show in the Shales from 2,008 feet to about 2,500 feet and some oil produced. This week it made a flow outside the casing and same was saved. To test this oil, Carnegie Natural Gas Co. is deepening No. 3 J. W. Hickman. The first oil pay was missed but there is a showing at 2,221 feet.

In Jackson County, United Carbon Co. is down 2,337 feet and 2,198 feet in the two tests on the Elizabeth W. Perkins farm in Washington district.

In Putnam County, West Virginia Gas Co. reached the top of the Corniferous lime at 4,515 feet in the test on the C. E. Albertson, trustee, lease in Pocatalico district on the Pocatalico River 3 miles east of Raymond City.

Southwest Texas District

NO DISCOVERIES MADE, BUT NEW FIELDS SHOW ACTIVITY

By GEORGE WEBER

HOUSTON, Tex., July 19.—Another quiet week in Southwest Texas developments brought no new discoveries of importance. Minor showings were reported in three wildcats drilling in Zapata, Jim Wells and Brooks counties. Activity has slumped in the Laredo district and to some extent in the lower Coastal area, but increased activity in a number of new fields counteracts somewhat the decline in general drilling.

High spots of the week's field development are the North Sweden field in Duval County, the McCampbell field of Aransas and San Patricio counties, and the Saxet field in Nueces County, which has led activity for many months. Wildcatting is on the increase in the Karnes and Wilson counties sector, the fault zone and in Duval County, but exploration received setbacks in Cameron County in the lower Rio Grande Valley.

In Zapata County, O. W. Killam No. 1 Bruni cored a sand at 4,190 feet which had a showing of oil. The test is being cored further. No. 1 Bruni is located in Block 83 of the Ranchito pasture, Borrego Grant, about 10 miles south of Agullares.

Jim Wells County's currently outstanding wildcat, Magnolia Petroleum Co. No. 7 Seeligson, tested more sands during the week, and has set a string of protective casing before coring further. The test encountered a sand body at 6,118-42 feet, which showed 40 feet of mud, sand and distillate at a working pressure of 960 pounds. Botton-hole pressure was recorded at 3,125 pounds. The operators have run a Schlumberger survey and are setting 9⅝-inch casing before proceeding to the contract depth of 9,000 feet. This wildcat is located on a prospect which has received considerable attention from Magnolia in past years, but which has to date failed to produce commercial oil, although numerous sands showing gas and distillate have been found in the several tests drilled.

The Standard Oil Co. of Texas tested 98 feet of gas-cut mud at 40 pounds working pressure in No. 1 Mestina at 5,147-60 feet. Operators have been plugging back from a total depth of 6,786 feet and testing the sands which have made showings. It is planned to plug back further and test another shallow sand next week.

Rio Grande Valley Slows Down

In the Lower Rio Grande Valley, activity is generally slow. However, the Samfordyce field of Hidalgo and Starr counties seems slated for an extension. Located 4,000 feet northwest of production in the field, the Tom Graham and Kingwood Oil Co. No. 1 Yturria cored the Barlow sand at 2,995-3,012 feet. A 15-minute drill stem test at that depth showed recovery of over 14 thribbles of oil at 100 pounds working pressure. The body will be cored further before setting casing for a production test.

Starr County continues fairly active, with drilling wells in the Ricaby, El Tanque, Roma and Barbacoas fields. In Hidalgo County two deep tests are drilling in flank positions on the La Bianca field. Cameron County operations slumped. The Saxet Production Co. No. 1 Port Isabel Irrigation Co. location was abandoned at a total depth of 7,786 feet. Both were in the vicinity of Brownsville. There remains but one wildcat in the county, the Ruez-Morton No. 1 United Land Irrigation Co., most southerly drilling well in the United States. The Ruez test is shut down at 6,040 feet.

North Sweden Field

The North Sweden field of Duval County remains the only area in the Laredo district where any appreciable activity is going on. The field shows promise of continuing the present rate of development for several weeks and possibly several months. During the past week 21 new locations were staked in the field proper, and wildcats are projected in the general vicinity of the proven area, which will in time constitute important tests of the field's probable development.

Despite the failure which defined the field on the southwest last week, the new southern extension which augmented it at the same time, contributed to considerable new activity. During the week, four new producers were brought in, totalling 815 bbls. per day of initial production. Ten rigs are actively drilling, and judging from the volume of new locations staked, this number will remain active or possibly increase. Many of the new tests will be located in the vicinity of the Standard Oil Co. of Kansas No. 1 Parr, which last week opened production in a new sand, at the same time extending the field 1 mile south.

McCampbell Activity

One of the most active fields in the Lower Gulf Coast is McCampbell, in Aransas and San Patricio counties. Since the deeper and more productive sand was opened at McCampbell, activity has been on the increase. At present 11 rigs are active and others are being moved in for development of the 6,550- and 7,110-foot sands.

During the week the No. 1 McCampbell of P. L. Dertelson, recently taken over from Collins & Broughton, was completed for an initial of 75 bbls. per day in the deep sand. The test is a workover of a failure in the 6,550-foot sand, which proved nonproductive in that section of the field. The crude is very high gravity in the new well, averaging 60 degrees.

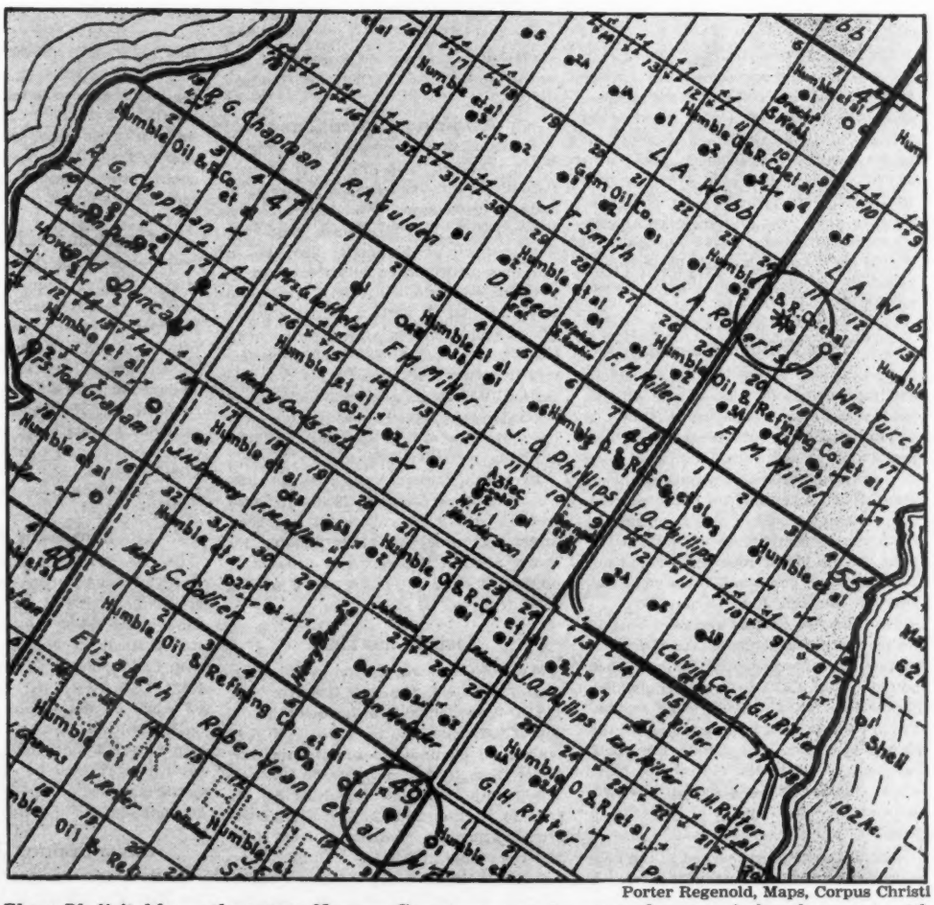
Besides Buchingham Oil Co. and the Atlantic Refining Co., major operators in the field, a number of others have begun drilling in McCampbell, namely, Danray Oil Co., Peach Tree Oil Co., Dertelson, Landreth Production Co., and Shasta Oil Co. Tom Graham of Corpus Christi is drilling a test with the Buckingham Oil Co.

New Wells in Saxet

Saxet gained a total of seven new producers, and two field tests were abandoned. Of the new wells, two are producing from the deepest sand in the field at 6,900 feet, one each bottomed in the 5,800-foot and 4,800-foot sands, and the remainder flowing from sands between 4,000 and 4,400 feet in the Clarkwood area.

Flour Bluff saw the first completions last week that were not good oil producers. The field was discovered a year ago last week, and since that time, 61 oil wells have been completed, which are now producing 4,500 bbls. per day.

This week, however, the Humble Oil & Refining



Porter Regenold, Maps, Corpus Christi

Flour Bluff field, southeastern Nueces County enters its second year of development with production extended nearly to the water's edge on each side of the peninsula. Circles indicate the first gasser in the field, Humble and others No. 3 Robertson in proven acreage, and a small producer No. 1 Roberdeau on the south edge of the field. J. K. Culton No. 1 Singer, a 2-mile southwest outpost was a failure

Co. and others No. 1 Roberdeau came in making only 20 bbls. per day, for the smallest producer to date. It is located on the south edge of the field as presently defined. Also, operators completed No. 3 Robertson early in the week for a gasser, marking the first failure to find oil since the field's discovery. Recently an outpost test drilled by J. K. Culton 2 miles southwest of the field failed to find commercial production in the sand.

San Patricio County operations are picking up, with new tests drilling in the Plymouth and Midway fields. In the latter area, the Phillips Petroleum Co. which discovered the field and later extended it nearly a mile to the north, is starting offset tests to both the discovery and extension well, and Sun Oil Co. is drilling in a south offset test to the extension. The White Point field of southern San Patricio County again showed failure to produce from deep sands, as the Pan American Production Co. No. 1 White Point Development Co. was abandoned at total depth of 6,019 feet. The field, is one of the first to be discovered in Southwest Texas, and is primarily a gas field, producing oil in small quantities from two wells.

The new Lundell field, 1 mile due west of Government Wells, suffered a setback during the week, as the Cole sand, producing in the discovery well, tested salt water in the Government Wells Oil Co. No. 3 Lundell. The third test cored the sand at 1,543-47 feet, recovering 1,000 feet of salt water and a slight show of oil, and is drilling ahead. A second test in the area, Magnolia Petroleum Co. No. 2 D.C.R.C. is also drilling below the field sand.

Rocky Mountain Area

(Continued from Page 81)

SW sec. 21-36n-3w. Drlg. 1,955 ft.; Sunburst dry at 1,755-1,820 ft.
Bryant Bros. No. 1 Lashbaugh, NE SW NW sec. 34-25n-2w. T.D. 850 ft.; R.U. heavier mach. to resume.
Ogden-Kevin Oil Co. No. 7 Zachot, SE SW NW sec. 20-35n-1w. S.D. 900 ft.
Treasure State Oil Co. No. 4 Shaw, SW NE NE sec. 35-36n-2w. T.D. 1,571 ft.; shot with 80 qts.; 1,000 ft. oil in hole; stdg.

Outside Kevin-Sunburst

Model Oils, Inc., No. 1 Fey, NE SW sec. 5-37-3e. Drlg. 600 ft.

Yellowstone County

Western Dakota Oil Co. No. 1 Fox, CEL NW NE sec. 14-2n-23e. Drlg. 650 ft.; S.O. 502 ft.
Broadview Dome Oil Co. No. 1, NE NE SW sec. 18-3n-23e. Drlg. 700 ft.; S.O. 425 and 635 ft.

UTAH

Daggett County

Mountain Fuel Supply Co. No. 1 Lauzier, CNL NW NW sec. 27-3n-24e. T.D. 5,814 ft.; 14,000,000 ft. gas in Dakota at 5,748-5,814 ft.

Carbon County

Kelly Young No. 1, NE NE SE sec. 20-14s-10e. Drlg. 600 ft. in Dakota test (first report).

Grand County

Utah Southern Oil Co. No. 1 Hyde, SE NW NW sec. 33-22s-22e. S.D. 6,715 ft.; M.I. heavier rot. equip.
Columbia Crude Corp. No. 1 Rath, NW SW SE sec. 12-25s-20e. S.D. 2,265 ft.; to erect standard drk.
Cane Creek Oil Co. No. 1 Govt., NW SW sec. 31-26n-21e. Drlg. 245 ft.

NEBRASKA

Sioux County

J. M. Huber Corp. and United Producers, Inc., No. 1 Morgan, C SW SW sec. 32-35n-56e. T.D. 2,985 ft.; R.U.R. to D.D.

Dawes County

Stephens Oil Corp. No. 1 Palmer, C NW SW sec. 1-33n-50w. Drlg. 2,572 ft.

Keith County

Twentieth Century Oil Co. No. 1 Stuken, C NW NW sec. 21-14n-37w. S.D. 110 ft.; indef.

Lincoln County

Smith & Wright No. 1 Hansen, C SW NW sec. 24-15n-31w. S.D 1,805 ft.

Jefferson County

L. R Page et al No 1 Bonham, C SE SE sec 1-1n-1e. Spdg.

Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, July 17. — Crude oil and naphtha deliveries from Turner Valley to the Imperial and British American refineries at Calgary in the first six months of 1937 established a new half-year record of 810,494 bbls. against 461,-014 bbls. in the same period of 1936. The 1937 deliveries represent an estimated gross of $1,620,988, on which the Alberta government receives 10 per cent royalty. Actual total deliveries will be increased by sales to smaller distributing companies and in the field.

Trner Valley Pressures

A statement issued by the petroleum and natural gas division of the Alberta lands and mines department shows a general decline in rock pressures of Turner Valley wells in June compared with the previous official measurements of June, 1936. Several large crude producers were not tested, it being considered that, due to the column of fluid in the hole, the results of such tests would not show the true condition. Tests were carried out between June 10 and 26

The heaviest decline recorded was in Union-Freehold Oil Corp. No. 1, LSD 8, section 21-18-2w5, which dropped 340 pounds from 1,420 to 1,080. Highwood-Sarcee Oils No. 2, LSD 1, same section, not in production a year ago, showed the highest pressure, 1,130 pounds. The smallest decline was in the old central field, where Okalta Oils No. 1, section 1-20-3w5, showed an apparent drop of only 6 pounds.

Declines were most marked in the new southern extension, among the newest producers, where also the highest pressures were recorded. The lowest pressures were in the Home area, section 20-19-2w5, Calmont Oils No. 2 showing only 362 pounds. Pressures were higher in the older central field, where declines were also the least; due largely to the conservation policies of the Royalite Oil Co. which controls a majority of the producers.

Acidizing Operations

Acidizing operations are continuing in Turner Valley, with the wells already treated showing substantial increases in settled production. Foundation Petroleums No. 1, LSD 5, section 21-18-2w5, with natural production of 225 bbls. a day, has settled after acid treatment to between 530 and 540 bbls. West Side Royalties No. 1, LSD 3, same section, which made 395 bbls. after the first acidization, increased to 488 bbls. after second treatment. Advance Oil Co. No. 5-A, section 19-19-2w5, settled to 40 bbls. after several years' steady production, was brought up by acid to 350 bbls. flush and 102 bbls. settled production.

In North Turner Valley, Model Oils No. 1, LSD 8, section 22-20-3w5, was treated with 3,300 gallons. It has been producing crude since 1930, making recently about 130 bbls. Acid brought it up to 155 bbls. or better, and a second treatment may be given.

Tests in the Lime

West of the crude oil line in the south end of the field, Monarch Royalties No. 1, LSD 9, section 20-18-2w5, got the Madison at 6,638 feet and is below 6,665 feet with good oil and gas shows from the upper lime. It will probably be finished this month. Richland Royalties No. 3, LSD 14, section 28-18-2w5, has resumed after getting the Madison at 5,607 feet and cementing at 5,615.

Royalite Oil Co. No. 5 Sterling Pacific, LSD 12, section 33-18-2w5, got the lime at 6,610 feet and cemented at 6,632. It has resumed drilling.

West Side

In section 32-18-2w5, Vantage Oils, Ltd., of Vancouver has undertaken to drill a test on 20 acres in S half LSD 12. The acreage is owned by Roxana Petroleums, which will receive 10 per cent royalty. Acreage is due west of Sterling Pacific No. 5. Royal Crest Petroleums No. 1, LSD 9, same section, is below 3,978 feet. West Turner Petroleums No. 1, LSD 2, is rigged. West Flank Oil Co. No. 1, S half LSD 1, is below 3,077 feet. West Flank No. 2, N half same LSD, is below 535 feet.

Two miles west of the crude oil line, Okalta Oils No. 6, LSD 3, section 30-18-2w5, is spudding.

In section 21-18-2w5, Davies-Royalite No. 2, LSD 13, is below 5,033 feet.

In section 20-18-2w5, Royal Canadian Oils No. 1, LSD 15, is rigging rotary, to resume from 505 feet, with Royalite Oil Co. handling completion of the test. Sunset Oils No. 1, LSD 10, has cemented 10-inch at 3,044 feet and is dismantling standard rig. It will finish with rotary outfit from Monarch Royalties No. 1 as soon as the latter is completed.

Commonwealth Officers

Shareholders of Commonwealth Petroleums, Ltd., at their annual meeting at Calgary elected the following officers: President, Newton Wylie, Toronto; vice president and chairman of the board, D. J. Young; secretary-treasurer, S. A. Annand; directors, Lionel C. West, D. L. Redman, W. H. Honens, L. E. Clarry; assistant secretary, H. E. Kitrick. The company, through a subsidiary, Commoil, Ltd., is sponsoring a test on the west flank of South Turner Valley.

East Side Area

On the New Valley structure east of Turner Valley, McLeod Oil Co. No. 1. LSD 4, section 6-21-2w5, is deepening with cable tools below 8,082 feet, with continued small oil shows.

In Calling Valley, Anglo-Indian Oil Co. No. 1, LSD 4, section 31-21-2w5, has started work on derrick for a combination outfit. Sentinel Oil Co. No. 1, LSD 1, section 8-20-2w5, standing at 5,850 feet for several years, will be deepened as soon as the standard outfit from McLeod No. 1 is available.

Silver Springs Gas Test

In the Silver Springs settlement near the Bowness suburb of Calgary, a local syndicate has let contract to Sloan Drilling Co. for a shallow test for gas in section 10-25-2w5, to be used locally.

Tests in the Foothills

In the Forest Reserve area west of Olds, Hunter Valley Oil Co. No. 1 McLaren, LSD 12, section 13-31-10w5, is in a limey formation below 8,037 feet with shows of oil and gas. The Madison limestone, originally expected around 7,600 feet, has not yet been reached.

In the Pincher Creek district, Weymarn Petroleums No. 2, LSD 5, section 7-6-1w5, has practically finished bailing and may acidize to clear drilling mud from the formation.

In the northern foothills, geological work is being carried on in the Pouce Coupe district by F. H. McLearn of the Geological Survey of Canada, Dr. J. O. G. Sanderson for Home Oils, Ltd., and Dr. T. B. Williams for the Canada Empire Crude Oil Syndicate.

Taber Field

In the Taber field, southern Alberta, Plains Petroleum Corp. No. 2, LSD 11, section 25-9-17w4, struck a strong flow of gas, estimated 1,000,000 feet a day in the Bow Island sand at 2,125 feet. The sand, between 5 and 6 feet in thickness, did not occur in Plains No. 1 discovery well to the north. While deepening to run 8-inch casing to 2,300 feet, the gas caught fire, destroying the derrick and practically all equipment on the location. L. Bennett, one of the drillers, was burned while attempting to extinguish the fire. A new outfit will be rigged as soon as possible, and the hole deepened to around 3,000 feet, where production is expected. Plains No. 3, section 26-9-17w4, a half mile west of No. 2, has spudded. Derrick timbers are being moved to locations for Nos. 4 and 5. Plains No. 1, LSD 14, section 29-9-17w4, is resuming after recementing casing to shut off water.

About 2 miles northeast of Taber, J. R. Fortune has finished three shallow structure tests for Taber Petroleum Syndicate. Four additional holes will be drilled before locating a commercial test.

Border Fields

In the Blood Indian Reserve west of Lethbridge, the Western Diamond Drilling Co. is putting down a series of structure tests.

Directly north of the Montana-Alberta boundary, K. D. Pardee and associates have started a test in LSD 7, section 1-1-18w4. Location is about 24 miles east of the Del Bonita area where strong oil and gas shows have been met in the top of the Madison limestone, and about 15 miles southeast of the Twin River structure.

On the Rogers-Imperial structure east

(Continued on Page 99)

WILDCAT OPERATIONS

CALIFORNIA

IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Shell Oil, No. 1-26 Capitan, Santa Barbara Co.	32- 5-30	1,565	flow. 423 b.d.
Texas Co., No. 1 Careaga, Santa Barbara Co.	1- 4-31	1,140	hd. sd. drlg.
Hancock-Bush, No. 1-R Santa Maria, Santa Barbara	25-10-34	1,991	sd. sh. drlg.
Sed Oil, No. 1 Mills, Santa Maria, Santa Barbara Co.	27-10-34	2,000	cmtd. 775
Union Oil, No. 1-19 Enos, Santa Maria, Santa Barbara	23-10-34	2,765	sd. sh. drlg.
Union Oil, No. 1 Cook, Santa Maria, Santa Barbara	30-10-33	4,590	sd. sh. drlg.
Union Oil, No. 1-B Santa Maria, Santa Barbara Co.	21-10-34	4,161	sd. sh. drlg.
Union Oil, No. 19 Orcutt, Santa Barbara Co.	26- 9-34	3,636	O.S. drlg.
Pac. Western Oil, No. 1 Santa Maria, Santa Barbara	21-10-34	4,227	pump. 400 b.d.
Rice Ranch Oil, No. 4 Orcutt, Santa Barbara Co.	23- 9-34	4,300	br. sh. drlg.
Valley Oil, No. 1 Casmalia, Santa Barbara Co.	20- 9-34	2,340	idle
So. Cal. Drlg., No. 1-H Santa Maria, Santa Barbara	9- 9-33	5,003	cmtd. 4,320
101 Oil, No. 1 Pt. Concepcion, Santa Barbara Co.	35- 5-33	487	sd. sh. drlg.
Tide Water A. O., No. 1-L Santa Rita, Santa Barbara	3- 6-33	1,531	sd. sh. drlg.
Hancock Oil, No. 2 Los Alamos, Santa Barbara Co.	6- 7-32	3,565	hd. sh. drlg.
Arnold Oil, No. 2 Los Alamos, Santa Barbara Co.	8- 8-33	5,205	br. sh. drlg.
Field Gasoline, No. 2-C Gato Ridge, Santa Barbara Co.	4- 8-32	3,714	pump. 575 b.d.
Nine Springs Oil, No. 1 Los Olivos, Santa Barbara Co.	9- 7-32	3,310	idle
Oatman Mining, No. 1 Mesa, Santa Barbara Co.	28- 4-27	2,002	pump. 15 b.d.
Del Mar Oil, No. 1 Summerland, Santa Barbara Co.	16- 4-26	2,725	fish. D.P.
Skyline Pet., No. 1 Hopper Canyon, Ventura Co.	13- 4-19	467	idle
Petroleum Securities, No. 1 Calumet, Shiells, Ventura	3- 3-19	3,375	rd. sh. drlg.
Texas Co., No. 129 Shiells, Ventura Co.	4- 3-19	4,812	redrlg. 3,162
Texas Co., No. 133 Shiells, Ventura Co.	4- 3-19	1,263	sd. sh. drlg.
Union Oil, No. 16 Bardsdale, Ventura Co.	12- 3-20	5,315	sd. sh. drlg.
Richfield Oil, No. 1 Camarillo, Ventura Co.	18- 2-20	352	core hole; abd.
Condor Oil, No. 1 Sespe, Ventura Co.	6- 4-19	2,031	fish. bailer
Ivers, H. A., No. 14 Star, Sespe, Ventura Co.	1- 4-20	1,220	sd. sh. drlg.
Topa Topa Oil, No. 2 Sespe, Ventura Co.	33- 5-19	3,656	rd. sd. drlg.
Speik Oil, No. 2 Sespe, Ventura Co.	33- 5-19	2,821	sd. sh. drlg.
Colima Oil, No. 2 Sespe, Ventura Co.	25- 5-19	3,260	reaming
Pac. Western Oil, No. 9 Temescal, Ventura Co.	3- 4-18	2,553	hd. sh. drlg.
Vai, Giovani, No. 1 Ojai, Ventura Co.	4- 4-21	792	hd. sh. drlg.
Continental Oil, No. 1 Red Mountain, Ventura Co.	7- 3-23	8,021	hd. sd. drlg.
Continental Oil, No. 7 San Miguelito, Ventura Co.	23- 3-24	6,860	flow. 1,265 b.d.
C. C. M. Oil Co. No. 2 Padre Canyon, Ventura Co.	23- 3-24	6,531	O.S. drlg.
Continental Oil, No. 3 Padre Canyon, Ventura Co.	15- 3-24	7,291	idle
C. C. M. Oil, No. 14 Rincon, Ventura Co.	17- 3-24	3,910	O.S. drlg.
C. C. M. Oil, No. 15 Rincon, Ventura Co.	17- 3-24	3,574	br. sh. drlg.
Richfield Oil, No. 2 Hobson, Rincon, Ventura Co.	8- 3-24	3,490	sd. sh. drlg.
El Rio Oil, No. 1 Oxnard, Ventura Co.	6- 1-21	3,000	pump. 60 b.d.
Tide Water A. O., No. 31 V.L.W., Ventura, Ventura	24- 3-23	6,185	sd. sh. drlg.
Tide Water A. O., No. 61 Lloyd, Ventura, Ventura	27- 3-23	3,134	sd. sh. drlg.
Tide Water A. O., No. 62 Lloyd, Ventura, Ventura	27- 3-23	4,293	sd. sh. drlg.
Tide Water A. O., No. 137 Lloyd, Ventura, Ventura	27- 3-23	8,355	gr. sd. drlg.
Tide Water A. O., No. 18 Hartman, Ventura, Ventura	22- 3-23	4,650	sd. sh. drlg.
Shell Oil, No. 91 Taylor, Ventura, Ventura	30- 3-23	8,187	O.S. drlg.
Shell Oil, No. 35 Gosnell, Ventura, Ventura	28- 3-23	8,950	redrlg. 8,290
General Pet., No. 17 Barnard, Ventura, Ventura Co.	23- 3-23	8,176	fish. D.P.
Den Petroleum, No. 1 Devils Den, Kern Co.	20-25-19	4,276	cmtd. 3,595
Tide Water A. O., No. 12-D Lost Hills, Kern Co.	11-26-20	897	sd. sh. drlg.
Argo Pet., No. 1-F Lost Hills, Kern Co.	11-26-20	461	sd. sh. drlg.
Texas Co., No. 2-32 Theta, Lost Hills, Kern Co.	2-26-20	1,226	cleaning out
Amerada Pet., No. 1 Blackwell Corner, Kern Co.	17-26-19	2,670	pump. 10 b.d.
East Puente Oil, No. 23-11 McKittrick, Kern Co.	11-30-21	1,313	pump. 70 b.d.
Continental Oil, No. 2 Wasco, Kern Co.	8-27-24	5,581	sd. sh. drlg.
Seaboard Oil, No. 1 Wasco, Kern Co.	26-27-24	10,243	to abandon
Belridge Oil, No. 3-35 North Belridge, Kern Co.	35-27-20	8,400	flow. 3,740 b.d.
Belridge Oil, No. 53-26 North Belridge, Kern Co.	26-27-20	2,182	br. sh. drlg.
Belridge Oil, No. 61-26 North Belridge, Kern Co.	26-27-20	4,571	br. sh. drlg.
Belridge Oil, No. 28-1 North Belridge, Kern Co.	1-28-20	4,798	sd. sh. drlg.
Continental Oil, No. 9 North Belridge, Kern Co.	36-27-20	8,190	hd. sh. drlg.
Tide Water Associated, No. 6 North Belridge, Kern	34-27-20	7,470	hd. sh. drlg.
Texas Co., No. 1 Martin, North Belridge, Kern Co.	22-27-20	6,990	br. sh. drlg.
Ohio Oil, No. 1 Hopkins, South Belridge, Kern Co.	4-29-21	939	P.B. 800
Santa Ynez Oil, No. 1 Temblor, Kern Co.	36-29-20	1,520	sd. sh. drlg.
Honolulu Oil, No. 35 Round Mountain, Kern Co.	20-28-29	1,940	O.S. drlg.
Fremont Oil, No. 1 Olcese, Round Mountain, Kern Co.	26-28-29	131	sd. sh. drlg.
Republic Pet., No. 18-S Kern Front, Kern Co.	24-28-27	1,720	O.S. drlg.
McDonald & Dearin, No. 4 Carrie, Kern Front, Kern	10-28-27	2,141	cleaning out
Apex Petroleum, No. 10-3 Kern Front, Kern Co.	10-28-27	2,177	pump. 145 b.d.
Associated Hold., No. 1-H Kern Front, Kern Co.	11-28-27	1,960	rig. to pump
Oils, Inc., of California, No. 7-2 Kern Front, Kern Co.	13-28-27	1,289	P.B. 1,247
General Pet., No. 53 Young, Kern Front, Kern Co.	13-28-27	1,925	pump. water
Malone, F. H., No. 3 Mabry, Kern Front, Kern Co.	4-28-27	971	sd. sh. drlg.
California Star Oil, No. 10-80 Kern Front, Kern Co.	22-27-27	2,702	cleaning out
Texas Co., No. 4 Lehman, Kern Front, Kern Co.	23-28-27	1,964	will deepen
Texas Co., No. 7 Lehman, Kern Front, Kern Co.	23-28-27	2,125	cleaning out
Shell Oil, No. 1 Bellview, Kern Co.	31-29-27	6,470	sd. sh. drlg.
Superior Oil, No. 2 Bakersfield, Kern Co.	36-29-28	3,376	sd. sh. drlg.
Palmer & Luse, No. 1 Kern River, Kern Co.	10-28-28	1,776	sd. sh. drlg.
Italo Pet., No. 1-K Kern River, Kern Co.	19-28-28	3,578	P.B. 1,190
McKeon, Inc., No. 1-C Kern River, Kern Co.	32-28-28	2,200	sd. sh. drlg.
C. C. M. Oil, No. 1 Carter, Mount Poso, Kern Co.	7-27-27	4,726	gr. sd. drlg.
Framac Oil, No. 1 Brown, Mount Poso, Kern Co.	22-27-27	1,351	fish. D.P.
Chevalier, J. J., No. 3 S.P., Mount Poso, Kern Co.	3-27-28	1,475	cleaning out
Shell Oil, No. 20 Security, Mount Poso, Kern Co.	16-27-28	1,794	pump. 301 b.d.
Shell Oil, No. 21 Security, Mount Poso, Kern Co.	16-27-28	1,799	sd. sh. drlg.
General Pet., No. 1 West Premier, Kern Co.	36-27-26	3,190	sd. sh. drlg.
Banducci, L. J., No. 2-T Fruitvale, Kern Co.	26-29-27	3,770	cleaning out
Western Gulf Oil, No. 2-M Fruitvale, Kern Co.	27-29-27	3,875	O.S. drlg.
Simmel, L. C., No. 1 Fruitvale, Kern Co.	23-29-27	3,253	sd. sh. drlg.
Gardner & Powell, No. 1 Fruitvale, Kern Co.	23-29-27	504	cmtd. 504
Mohawk Pet., No. 4-23 K.C.L., Fruitvale, Kern Co.	23-29-27	3,710	P.B. 3,565
B. & O. Oil, No. 1-T Fruitvale, Kern Co.	14-29-27	2,944	cleaning out
Meridian Oil, No. 4-T Fruitvale, Kern Co.	23-29-27	3,086	sd. sh. drlg.
American Expl., No. 1-G Mountain View, Kern Co.	18-30-29	4,792	P.B. 4,722
American Expl., No. 1-C Mountain View, Kern Co.	18-30-29	4,730	redrlg. 3,599
Standard Oil, No. 5-M Mountain View, Kern Co.	18-30-29	4,991	sd. sh. drlg.
Mohawk Pet., No. 4 Earl Fruit, Mountain View, Kern	4-31-29	5,778	gr. sd. drlg.
Ohio Oil, No. 2-B Mountain View, Kern Co.	33-30-29	3,795	sd. sh. drlg.
Petrol Prod., No. 1 Earl, Mountain View, Kern Co.	4-31-29	3,786	sd. sh. drlg.
Hogan Pet., No. 4 Symons, Mountain View, Kern Co.	5-31-29	6,188	cleaning out
Hogan Pet., No. 10 Porter, Mountain View, Kern Co.	29-30-29	5,190	sd. sh. drlg.
Greer, P. H., No. 2 Perrel, Mountain View, Kern Co.	9-31-29	6,639	gr. sd. drlg.
Monterey Expl., No. 7 Duff, Edison, Kern Co.	15-30-29	512	sd. sh. drlg.
Berree Oil, No. 6 Seale, Edison, Kern Co.	5-30-29	2,297	sd. sh. drlg.
Cajalco Pet., No. 1 Brown, Edison, Kern Co.	9-30-30	3,465	gr. sd. drlg.
East Edison Oil, No. 2 Edison, Kern Co.	23-30-30	1,898	hd. sd. drlg.
Arkelo Oil, No. 1 Lerdo, Kern Co.	23-28-26	10,050	redrlg. 7,760
Union Oil, No. 1-34 Rio Bravo, Kern Co.	34-28-25	10,090	br. sh. drlg.
Continental Oil, No. 1 Rosedale, Kern Co.	12-29-26	9,831	gr. sd. drlg.
Standard Oil, No. 11-4 KCL, Greeley, Kern Co.	20-29-26	7,800	flow. 560 b.d.
Standard Oil, No. 11-6 KCL, Greeley, Kern Co.	17-29-26	7,710	sd. sh. drlg.
Union Oil, No. 4 San Emidio, Kern Co.	31-11-22	2,069	br. sh. drlg.
Shell Oil, No. 21-14 Old River, Kern Co.	14-30-25	8,613	cmtd. 8,275
Shell Oil, No. 58-29 Ten Section, Kern Co.	29-30-26	8,386	flow. 1,824 b.d.
C. C. M. Oil, No. 22-21 Midway-Sunset, Kern Co.	21-32-23	2,141	O.S. drlg.
C. C. M. Oil, No. 32-21 Midway-Sunset, Kern Co.	21-32-23	2,495	O.S. drlg.
Evans, H. B., No. 19 Midway-Sunset, Kern Co.	35-32-23	1,254	sd. sh. drlg.
Signal Oil, No. 5-W Midway-Sunset, Kern Co.	8-11-23	2,915	pump. 40 b.d.
Monticello Oil, No. 4 Midway-Sunset, Kern Co.	27-31-22	882	cmtd.
Ethel D Oil, No. 43 Midway-Sunset, Kern Co.	36-12-24	1,430	rig. to pump
Standard Oil, No. 7-13-D Midway-Sunset, Kern Co.	13-32-24	3,585	O.S. drlg.
Standard Oil, No. 50-33-D Midway-Sunset, Kern Co.	33-32-24	2,775	rig. to pump
Merritt-Annex Oil, No. 5 Fried, Midway-Sunset, Kern	25-12-24	2,713	O.S. drlg.
Quality Oil, No. 1-W.P., Midway-Sunset, Kern Co.	27-32-23	1,881	O.S. drlg.
Texas Co., No. 23 Midway-Sunset, Kern Co.	32-32-24	1,520	sd. sh. drlg.
U. S. Pumping Equip., No. 5 Midway-Sunset, Kern Co.	12-11-24	1,660	tested wet
General Pet., No. 49-B Midway-Sunset, Kern Co.	24-31-23	4,495	idle
Hoyt, Otis, No. 6 Midway-Sunset, Kern Co.	7-11-23	1,800	140 b.d.
Richfield Oil, No. 13-D Crampton, Elk Hills, Kern Co.	1-31-24	3,282	sd. sh. drlg.
Reserve Oil & Gas, No. 33-4 Tejon, Kern Co.	33-11-19	5,415	hd. sh. drlg.
Wilshire Oil, No. 1 Tejon, Kern Co.	5-10-19	4,650	fish. D.P.
Ohio Oil, No. 2 Tejon, Kern Co.	21-11-19	9,654	P.B. 6,662
Western Gulf Oil, No. 4 Cantua, Fresno Co.	32-16-15	3,192	sd. sh. drlg.
K. N. D. A., No. 4-18-J Kettleman North, Fresno Co.	18-21-17	10,753	recmtd. 10,715
K. N. D. A., No. 47-28-J Kettleman North, Fresno Co.	28-21-17	5,770	br. sh. drlg.
K. N. D. A., No. 67-28-J Kettleman North, Fresno Co.	28-21-17	7,817	O.S. drlg.

KEY TO ABBREVIATIONS USED IN DRILLING REPORTS

Abd., abandoned.
Bldg., building.
B.D., barrels daily.
B.P., back pressure.
B.R., building rig.
Br. sh., brown shale.
B.S., basic sediment.
C.P., casing pressure.
Cd. or Crd., cored.
C.D., corrected depth.
Cg., coring.
C.L., center line.
Cmtd., cemented.
C.O., cleaning out.
Comp., completed.
Compr., compressor.
C.P., casing pressure, also cement through perforations.
Csg., casing.
D.D., drilling (or drilled) deeper.
Drlg. or Drg., drilling.
Drk. or Dk., derrick.
D.S., drill stem.
D.&A., dry and abandoned.
Fsg., fishing.
Gbo., gumbo.
G.I., gas injection.
Gr., gravity.
Gr. sd., gray sand.
Grn. sh., green shale.
Hd. sd., hard sand.
H.F.W., hole full of water.
I.P., initial production.
L., lime.
L.D.D., later drilled deeper.
Lnr., liner.
Loc., location.
M.I.M., moving in material.
M.I.R., moving in rig.
M.I.R.T., moving in rotary tools.
M.O.T., milling on tools.
O.I.H., oil in hole.
O.S., oil sand.
O.T.D., old total depth.
O.W.D.D., old well drilling deeper.
O.W.P.B., old well plugging back.
P.B., plugging or plugged back.
P.B.P., plugging big pipe.
P.L., pipe line.
P.L.O., pipe line oil.
Pmpg., pumping.
P.O.P., putting on pump.
P.P., pulled pipe.
Rd. sd., red sand.
Rd. sh., red shale.
Recmt., recemented.
Rmg., reaming.
Redrlg., redrilling.
Rng., running.
R.O.G., rig on ground.
R.P., rock pressure.
R.U., rigging up.
R.U.R., rigging up rotary.
R.U.R.T., rigging up rotary tools.
R.U.S.T., rigging up standard tools.
R.&T., rods and tubing.
S. or Sd., sand.
S.D., shut down.
Sdy. sh., sandy shale.
Sdtr., or St., sidetracking.
S.D.P.L., shut down for pipe line.
S.D.W.O., shut down awaiting orders.
S.G., show gas.
Sh.&L., shale and lime.
S.I., shut in.
S.I.P., shut in, prorated.
S.L.M., steel line measurement.
S.O., show oil.
S.O.G.&W., show of oil, gas and water.
Spdg. or Spd., spudding.
S.R., straightreaming.
Stdg., standardizing (also standing).
S.W., salt water.
Swbg., swabbing.
T.A., temporarily abandoned.
Tbg., tubing.
T.D., total depth.
T.P., tubing pressure.
Tr., tract.
U.R., underreaming.
W.I.H., water in hole.
W.O., workover.
W.O.C. or W.O.C.S., waiting on cement to set.
W.P., working pressure.
W.S.O., water shutoff.
W.S.S.O.K., water shutoff O.K.
W.S.O.N.G., water shut off no good.
W.S.R. or W.O.S.R., wait on standard rig.
Wtr., water.

K. N. D. A., No. 78-28-J Kettleman North, Fresno Co.	28-21-17	8,140	flow. 546 b.d.
K. N. D. A., No. 2-34-J Kettleman North, Fresno Co.	34-21-17	7,940	cleaning out
K. N. D. A., No. 32-34-J Kettleman North, Fresno Co.	34-21-17	7,700	flow. 1,600 b.d.
K. N. D. A., No. 41-4-P Kettleman North, Fresno Co.	4-22-17	6,873	br. sh. drig.
K. N. D. A., No. 83-4-P Kettleman North, Fresno Co.	4-22-17	4,892	sd. sh. drig.
Standard Oil, No. 27-33-J Kettleman North, Fresno	33-21-17	595	sd. sh. drig.
Standard Oil, No. 41-33-J Kettleman North, Fresno	33-21-17	7,191	sd. sh. drig.
Standard Oil, No. 4-3-P Kettleman North, Kings	3-22-17	6,864	br. sh. drig.
Standard Oil, No. 78-3-P Kettleman North, Kings	3-22-17	8,005	fish. D.P.
Tembior Oil, No. 1-B Kettleman Middle, Kings Co.	25-23-18	6,796	br. sh. drig.
Bisconer, R., No. 1 Cloud, Kings Co.	11-24-20	1,454	sd. sh. drig.
Birch-Ranch Oil, No. 1 Orr, Kings Co.	5-23-17	2,476	sd. sh. drig.
Dudley Ridge Dev., No. 1 Tulare Lake, Kings Co.	24-23-20	1,456	bl. sh. drig.
Stone, G. S., No. 1 Teeter, Tulare Lake, Kings Co.	25-20-20	1,351	sd. sh. drig.
Tri-Counties Oil, No. 1 Tulare Lake, Kings Co.	10-23-22	4,300	idle
Tembior Oil, No. 1 Panorama, San Luis Obispo Co.	22-32-21	2,075	sd. sh. drig.
Lewis, A. O., No. 1 Pecho, San Luis Obispo Co.	34-30-10	2,774	flow. water
Shell Oil, No. 1 Pleyto, Monterey Co.	34-24-10	8,994	dry; abd
Anderson, Amil, No. 1 Cholame, Monterey Co.	15-24-14	1,135	sd. sh. drig.
California Oils, Inc., No. 1 Parkfield, Monterey Co.	33-23-15	3,500	repair. rig
Texas Co., No. 2 Eureka, Humboldt Co.	22- 3-1	7,708	cleaning out
Amerada Pet., No. 1 Triqueiro, Rio Vista, Solano Co.	24- 4-2	4,422	gas; shut in
Amerada Pet., No. 1 Hamilton, Rio Vista, Solano Co.	24- 4-2	487	sd. sh. drig.
Buttes Oilfields, Ltd., No. 1 Kent, Sutter Co.	2-15-1	5,810	fish. D.P.
Turner, L. E., No. 1 Tipton, Tulare Co.	15-22-26	2,676	sd. sh. drig.
Jennings, E. P., No. 1 Allensworth, Tulare Co.	4-24-23	2,709	cleaning out
Standard Oil, No. 1 Middle River, San Joaquin Co.	24- 1-5	6,098	gr. sd. drig.
Texas Co., No. 1 Roberts Island, San Joaquin Co.	8- 1-6	4,260	sd. sh. drig.
Coast Expl. Co., Well No. 1, Stanislaus Co.	30- 4-9	5,511	sd. sh. drig.
Standard Oil, No. 1 Woodland, Yolo Co.	32- 9-1	1,671	sd. sh. drig.

IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Richfield Oil, No. 6 El Segundo, Los Angeles Co.	18- 3-14	7,210	sd. sh. drig.
Richfield Oil, No. 1-SF El Segundo, Los Angeles Co.	18- 3-14	7,690	bailing
Richfield Oil, No. 1 Elsie, El Segundo, Los Angeles	12- 3-15	7,044	sd. sh. drig.
Ohio Oil, No. 4 Gough, El Segundo, Los Angeles Co.	7- 3-14	7,196	flow. 740 b.d.
Ohio Oil, No. 5 Gough, El Segundo, Los Angeles Co.	7- 3-14	7,357	flow. 1,520 b.d.
Texas Co., No. 3 Security, El Segundo, Los Angeles	18- 3-14	1,732	sd. sh. drig.
Republic Petroleum, No. 8 El Segundo, Los Angeles	18- 3-14	7,580	Schist
Lennox Pet., No. 1 Hawthorne, Los Angeles Co.	3- 3-14	3,994	sd. sh. drig.
Douglas Oil, No. 9 Peck, Lawndale, Los Angeles Co.	20- 3-14	7,103	sd. sh. drig.
Calizoo Oil, No. 1 S.L.A., Los Angeles Co.	16- 3-13	7,121	hd. sd. drig.
B. C. L. Oil, No. 1-Q Torrance, Los Angeles Co.	16- 4-14	1,542	idle
I. V. Oil, No. 1 Torrance, Los Angeles Co.	16- 4-14	3,360	sd. sh. drig.
Calmore Oil, No. 1 C.O.C., Torrance, Los Angeles Co.	6- 4-14	3,830	rig. to pump
C. C. M. Oil, No. 34-T Torrance, Los Angeles Co.	16- 4-14	4,282	br. sh. drig.
Bass & Goodknight, No. 8 Torrance, Los Angeles Co.	16- 4-14	2,241	sd. sh. drig.
McLaren & Assoc., No. 1 Palos Verdes, Los Angeles	27- 4-14	3,992	cleaning out
K. & I. Corp., No. 25 Rubel, Inglewood, Los Angeles	8- 2-14	3,938	flow. 2,770 b.d.
Texas Co., No. 1 Moynier, Inglewood, Los Angeles Co.	8- 2-14	3,338	will deepen
Country Club Oil, No. 1 Inglewood, Los Angeles Co.	19- 2-14	3,890	sd. sh. drig.
Shell Oil, No. 90 Reyes, Dominguez, Los Angeles Co.	33- 3-13	9,598	P.B. 7,580
Shell Oil, No. 91 Reyes, Dominguez, Los Angeles Co.	33- 3-13	3,637	sd. sh. drig.
Union Oil, No. 50 Callender, Dominguez, Los Angeles	33- 3-13	10,435	P.B. 9,605
Union Oil, No. 54 Callender, Dominguez, Los Angeles	33- 3-13	4,581	sd. sh. drig.
Union Oil, No. 55 Callender, Dominguez, Los Angeles	33- 3-13	6,701	sd. sh. drig.
Union Oil, No. 47 Heilman, Dominguez, Los Angeles	33- 3-13	6,000	sd. sh. drig.
Barnsdall Oil, No. 16 O'Dea, Rosecrans, Los Angeles	18- 3-13	6,194	sd. sh. drig.
Barnsdall Oil, No. 17 O'Dea, Rosecrans, Los Angeles	18- 3-13	5,177	sd. sh. drig.
Union Oil, No. 16 Rosecrans, Los Angeles Co.	18- 3-13	7,560	flow. 950 b.d.
Macrate, A. N., No. 2 Rosecrans, Los Angeles Co.	17- 3-13	5,870	sd. sh. drig.
Universal Consd., No. 1-T Rosecrans, Los Angeles Co.	18- 3-13	7,531	sd. sh. drig.
Bolsa Chica Oil, No. 1 Rosecrans, Los Angeles Co.	20- 3-13	7,707	idle
Union Oil, No. 18 D.R., Playa Del Rey, Los Angeles	27- 2-15	6,042	flow. 200 b.d.
Burt, A. G., No. 1 Newhall, Los Angeles Co.	36- 4-17	1,985	sd. sh. drig.
Barnsdall Oil, No. 2-S.F., Newhall, Los Angeles Co.	26- 4-17	3,382	sd. sh. drig.
Holbrook Pet., No. 1 Newhall, Los Angeles Co.	28- 4-16	5,822	sd. sh. drig.
General Pet., No. 10 Ford, Wilmington, Los Angeles	4- 5-13	4,115	sd. sh. drig.
General Pet., No. 14 Ford, Wilmington, Los Angeles	4- 5-13	2,652	sd. sh. drig.
General Pet., No. 2 Isco, Wilmington, Los Angeles Co.	4- 5-13	3,650	O.S. drig.
General Pet., No. 4-P Wilmington, Los Angeles Co.	4- 5-13	2,830	sd. sh. drig.
General Pet., No. 4-T Wilmington, Los Angeles Co.	4- 5-13	3,660	sd. sh. drig.
General Pet., No. 5-T Wilmington, Los Angeles Co.	4- 5-13	3,461	sd. sh. drig.
A. C. P. Oil, No. 1 Com., Wilmington, Los Angeles Co.	33- 4-13	3,373	flow. 310 b.d.
Bankline Oil, No. 1-P.T., Wilmington, Los Angeles Co.	33- 4-13	2,194	sd. sh. drig.
Bankline Oil, No. 26-D.H., Wilmington, Los Angeles	34- 4-13	3,066	sd. sh. drig.
Burnoel Oil, No. 1-E Wilmington, Los Angeles Co.	33- 4-13	3,596	flow. 290 b.d.
Carson Oil, No. 1 Wilmington, Los Angeles Co.	31- 4-13	1,976	sd. sh. drig.
Crude Oil Drig., No. 1-W Wilmington, Los Angeles	33- 4-13	3,152	sd. sh. drig.
Crude Oil Drig., No. 1-M Wilmington, Los Angeles	33- 4-13	2,542	sd. sh. drig.
Dunlap, D. D., No. 2 Wilmington, Los Angeles Co.	32- 4-13	3,615	flow. 672 b.d.
Graham-Loftus Oil, No. 1-P Wilmington, Los Angeles	33- 4-13	3,380	flow. 138 b.d.
Hall, Inc., No. 15-8 Wilmington, Los Angeles Co.	32- 4-13	3,640	sd. sh. drig.
Hall, Inc., No. 1-B Wilmington, Los Angeles Co.	33- 4-13	3,470	reaming
Holly Dev., No. 1 Dominguez, Wilmington, L. Angeles	33- 4-13	2,794	sd. sh. drig.
Hughes, W., No. 1 Wilmington, Los Angeles Co.	33- 4-13	2,981	sd. sh. drig.
Jergins Trust, No. 3 Wilmington, Los Angeles Co.	34- 4-13	1,541	sd. sh. drig.
Jergins Trust, No. 4 Wilmington, Los Angeles Co.	34- 4-13	3,084	sd. sh. drig.
Jergins Trust, No. 6 Wilmington, Los Angeles Co.	34- 4-13	3,350	sd. sh. drig.
Jergins Trust, No. 8 Wilmington, Los Angeles Co.	34- 4-13	3,030	sd. sh. drig.
Las Vegas L. & W., No. 1 Wilmington, Los Angeles	4- 5-13	3,779	sd. sh. drig.
Leal, G. V., No. 2 Wilmington, Los Angeles Co.	5- 5-13	3,600	flow. 298 b.d.
Macmillan Pet., No. 5-H Wilmington, Los Angeles Co.	32- 4-13	2,540	sd. sh. drig.
Olympic Ref., No. 4 fee, Wilmington, Los Angeles	33- 4-13	3,370	sd. sh. drig.
Pac. Western, No. 3 Patten, Wilmington, Los Angeles	32- 4-13	2,601	sd. sh. drig.
Pac. Western, No. 1 Ronan, Wilmington, Los Angeles	33- 4-13	1,592	sd. sh. drig.
Pac. Western, No. 2 Murphy, Wilmington, L. Angeles	33- 4-13	1,975	sd. sh. drig.
Packard Pet., No. 20-8-2 Wilmington, Los Angeles Co.	33- 4-13	2,923	sd. sh. drig.
Pongratz, Gus, No. 1-B Wilmington, Los Angeles Co.	32- 4-13	2,841	sd. sh. drig.
Royalty Service, No. 1 Oiler, Wilmington, L. Angeles	32- 4-13	3,625	sd. sh. drig.
Royalty Service, No. 842-2 Wilmington, Los Angeles	33- 4-13	2,767	sd. sh. drig.
Royalty Service, No. 1-D Wilmington, Los Angeles	33- 4-13	3,610	sd. sh. drig.
Royalty Service, No. 16-5-1 Wilmington, Los Angeles	32- 4-13	3,622	flow. 315 b.d.
Royalty Service, No. 25-8-1 Wilmington, Los Angeles	33- 4-13	3,001	sd. sh. drig.
Selegna-Western Corp., No. 7 Wilmington, L. Angeles	34- 4-13	1,891	sd. sh. drig.
Selegna Eastern, No. 5 Wilmington, Los Angeles Co.	33- 4-13	3,630	flow. 318 b.d.
Sovereign Oil, No. 4-A Wilmington, Los Angeles Co.	33- 4-13	3,632	pump. 150 b.d.
Sovereign Oil, No. 1-M Wilmington, Los Angeles Co.	33- 4-13	2,197	sd. sh. drig.
Union Pacific, No. 19 Wilmington, Los Angeles Co.	3- 5-13	1,181	sd. sh. drig.
Union Pacific, No. 25 Wilmington, Los Angeles Co.	33- 4-13	3,469	flow. 330 b.d.
Union Pacific, No. 27 Wilmington, Los Angeles Co.	4- 5-13	2,982	sd. sh. drig.
Union Pacific, No. 28 Wilmington, Los Angeles Co.	4- 5-13	2,930	sd. sh. drig.
Union Pacific, No. 29 Wilmington, Los Angeles Co.	4- 5-13	3,150	flow. 2,710 b.d.
Union Pacific, No. 31 Wilmington, Los Angeles Co.	34- 4-13	2,878	sd. sh. drig.
Union Pacific, No. 32 Wilmington, Los Angeles Co.	33- 4-13	1,510	sd. sh. drig.
Union Pacific, No. 33 Wilmington, Los Angeles Co.	33- 4-13	3,090	O.S. drig.
Union Pacific, No. 35 Wilmington, Los Angeles Co.	33- 4-13	1,841	sd. sh. drig.
Union Pacific, No. 1-C Wilmington, Los Angeles Co.	33- 4-13	3,532	sd. sh. drig.
Wilbur, V.R.G., No. 1-SF Wilmington, Los Angeles	28- 4-13	629	sd. sh. drig.
Wilbur, V.R.G., No. 3-M Wilmington, Los Angeles	33- 4-13	3,580	sd. sh. drig.
Sunset Oil, No. 1 Manhattan, Los Angeles Co.	19- 3-14	5,741	cleaning out
Julian, C. A., No. 1 Koch, Walnut, Los Angeles Co.	5- 2-9	1,968	sd. sh. drig.
Richfield Oil, No. 2 Ciocca, Montebello, Los Angeles	5- 2-11	5,685	sd. sh. drig.
Richfield Oil, No. 1 Estrada, Montebello, Los Angeles	5- 2-11	5,657	P.B. 5,540
Texas Co., No. 17 Baldwin, Montebello, Los Angeles	6- 2-11	6,620	sd. sh. drig.
Standard Oil, No. 2 Temple, Montebello, Los Angeles	10- 2-11	2,235	sd. sh. drig.
Hildon Oil, No. 2 Flood Control, Los Angeles Co.	13- 4-13	1,697	rigging up
Texas Co., No. 21-F Long Beach, Los Angeles Co.	19- 4-12	4,750	rig. to pump
Texas Co., No. 3 Flower, Long Beach, Los Angeles	19- 4-12	4,515	sd. sh. drig.
Mitchell, A. D., No. 3 Plymouth, L. Beach, L. Angeles	19- 4-12	3,240	redrig. 2,498
Shell Oil, No. 14 Cresson, Long Beach, Los Angeles	19- 4-12	3,380	rig. to pump
Richfield Oil, No. 10 Denni, Long Beach, Los Angeles	19- 4-12	1,988	sd. sh. drig.
Richfield Oil, No. 5 Frye, Long Beach, Los Angeles	19- 4-12	3,595	cleaning out
Coastal Oil & Gas, No. 1 Signal, L. Beach, Los Angeles	19- 4-12	4,450	sd. sh. drig.
Clayton, G. L., No. 1 North Long Beach, Los Angeles	32- 3-12	5,005	cleaning out
General Pet., No. 27 Santa Fe Springs, Los Angeles	5- 3-11	4,796	will P.B.
Union Oil, No. 100 Santa Fe Springs, Los Angeles Co.	6- 3-11	10,789	fish. D.P.
Texas Co., No. 7-W Santa Fe Springs, Los Angeles	6- 3-11	2,974	sd. sh. drig.
Wales Pet. Co., No. 1-H Monterey Park, Los Angeles	26- 1-12	2,654	sd. sh. drig.
Tide Water A. O., No. 16-B Seal Beach, Orange Co.	11- 5-12	5,902	sd. sh. drig.
Wilshire Oil, No. 1-A Huntington, Orange Co.	2- 6-11	2,147	sd. sh. drig.
Wilshire Oil, No. 6-B Huntington, Orange Co.	2- 6-11	2,197	sd. sh. drig.
Tide Water A. O., No. 41 M.K., Huntington, Orange	2- 6-11	4,050	redrig. 4,030
Union Oil, No. 10 Brooks, Huntington, Orange Co.	34- 5-11	1,952	sd. sh. drig.
W. P. R. Oil, No. 3 Huntington, Orange Co.	35- 5-11	4,900	P.B. 4,785
Orco Oil, No. 5 Huntington, Orange Co.	2- 6-11	5,390	sd. sh. drig.
Johnston Drig., No. 1 Sunset Beach, Orange Co.	20- 5-11	893	sd. sh. drig.
Commander Oil, No. 1 Newport, Orange Co.	29- 6-10	7,905	cmtd. 5,500
Shell Oil, No. 4-1 Columbia, Olinda, Orange Co.	9- 3-9	4,580	sd. sh. drig.
Cox, M. A., No. 1 East Coyote, Orange Co.	15- 3-10	5,450	P.B. 4,990
Bartholomae Oil, No. 4 East Coyote, Orange Co.	22- 3-10	5,056	pump. 200 b.d.
Dolicia Oil Co., No. 3 A.U.W., East Coyote, Orange Co.	24- 3-10	3,660	sd. sh. drig.
Kelly, Thomas, No. 11 East Coyote, Orange Co.	24- 3-10	3,725	pump. test
Union Oil, No. 20 Hole, East Coyote, Orange Co.	22- 3-10	5,371	P.B. 4,098
Standard Oil, No. 2-25 Kraemer, Richfield, Orange Co.	29- 3-9	4,383	hd. sh. drig.
Joseph, Arthur, No. 1 Richfield, Orange Co.	29- 3-9	3,740	P.B. 2,600
Union Oil, No. 14 Stern, Richfield, Orange Co.	33- 3-9	3,258	sd. sh. drig.
Richfield Consd. Oil, No. 1 Yorba, Orange Co.	22- 3-9	1,761	pump. 75 b.d.
Signet Oil, No. 1 Yorba, Orange Co.	21- 3-9	1,891	br. sh. drig.
West American Oil, No. 1 Tustin, Orange Co.	14- 5-9	5,750	hd. sd. drig.

KANSAS

Week Ending July 17 (Descriptions are East unless marked otherwise)

Barber County

Barbara Oil Co. No. 1-27 Holmes, C NW NW sec. 27-33-13w. Viola 4,824½-28 ft.; T.D.; S.S.O.; set 7-in. 4,482 ft.; drlg. cement.

Pryor & Lockhart No. 1 Gant, C SE sec. 7-31-13w. Viola 4,435-38 ft.; acd.; pot. 1,351 B.O.; comp.

W. I. Southern, Inc., No. 1 Davis, SE SE NE sec. 24-34-15w. Drlg. 3,545 ft.

Barton County

S. E. Bailey No. 1 Hammeke, NE NE SW sec. 12-18-12w. Sil. 3,415-27 ft.; 2,000 ft. O.I.H. in 10 days; set 5-in. at 3,402 ft.

J. B. Hanna No. 1 Luce, SW cor. sec. 21-20-13w. R.U.S.T. 3,300 ft.

Helmerich & Payne et al No. 1 Sessler, SW SW SE sec. 29-20-1w. Drlg. 2,772 ft.

Sam Murphy No. 1 Beck, NE cor. sec. 17-17-12w. Anhy. 760 ft.; drlg. 1,480 ft.

Republic Nat. Gas Co. and Continental Oil Co. No. 1 Moeder, NE NE SW sec. 25-17-13w. Sil. 3,370 ft.; T.D. 3,430 ft.; D.&A.

Shell Pet Corp. No. 1 Schneider, CNL S½ SE sec. 12-16-14w. Sil. 3,323 ft.; T.D. 3,352 ft.; D.&A.

Stanolind No. 1 Schartz, NW cor. sec. 33-19-11w. Sil. 3,328 ft.; S. 3 B.O.P.H. for 3 hrs.; shot; C.O.

Butler County

Kahn et al No. 1-A Madden, SW SW NE sec. 27-23-4. K.C. 2,065 ft.; T.D. 2,212 ft.; pot. 30 B.O. with 60 B.W.

Simpson Oil Co. et al No. 1-A Dennis, NE NE SW sec. 15-26-6. Bartlesville 3,108 ft.; Viola 3,191 ft.; drlg. 3,208 ft.

Maurer & Saco Oil Co. No. 1 Connell, NE NE SW sec. 27-29-5e. Drlg. 2,215 ft.

Chase County

California-Illinois-Kansas Oil Co. No. 1 Hughes, SW NW SE sec. 13-22-9e. Drlg. 470 ft.

Chautauqua County

C. L. Brosius et al No. 1 Garrett, NW SW NW sec. 26-32-11. S.D. 1,200 ft.

Robinson et al, No. 1 Foster, SW cor. sec. 6-33-12. Sil. 1,994 ft.; H.F.O.

Cowley County

B. B. Blair et al No. 1 Miller, NE NW SW sec. 14-32-5. T.D. 3,145 ft.; P.B. 3,105 ft.; shot; 10 B.O.P.D.

Lewis Prod. Co. No. 1 Feaster, SE NE SW sec. 36-32-5. Drlg. 1,270 ft.

Trees Oil Co. No. 1 Hornbeck, NW cor. sec. 5-33-4. U.R. 8-in. at 2,394 ft.

E. Wakefield No. 1 Powers, NW SW NW sec. 8-32-6. Set 8-in. 2,035 ft.; C.O.

Elk County

Morgan et al No. 1 Cook, NW cor. sec. 29-30-12. Miss. 1,628 ft.; H.F.W. 1,675-82 ft.; drlg. 1,990 ft.

Tyrrell No. 1 Sellars, SE cor. sec. 11-31-9. O.W.D.D.; T.D. 2,322 ft.; acd.; P. 170 B.O.P.D.; comp.

Ellis County

Austin Drlg. Co. No. 1 Karlin, NW cor. sec. 13-12-18w. Spd. and S.D.

Billings No. 1 Smith, SE SE NW sec. 14-12-16w. Sil. 3,356 ft.; first oil 8,360-64 ft.; T.D. 3,370 ft.; rebldg. rig.

Empire O. & R. Co. No. 1 Hall, NE cor. sec. 14-11-17w. Anhy. 1,015 ft.; drlg. 1,648 ft.

J. J. Muth No. 1 Penney, NW SE SE sec. 29-14-18w. S.D. 315 ft.

C. E. W. Skiles et al No. 1 Jensen, SW SE NE sec. 26-12-18w. S.D. 210 ft.

Vickers Pet. Co. et al No. 1 Parker, C N½ NE NW sec. 35-11-16w. Anhy. 875 ft.; H.F.W. 2,160-65 ft.; rng. 8-in.

Earl Wakefield et al No. 1 Burnett, NW NW NE sec. 1-11-18w. Anhy. 1,310 ft.; set 8-in. 2,503 ft.; drlg. 2,555 ft.

Western Kansas O. & R. Co. and Aylward Prod. Co. No. 1 Schmeidler, NW cor. sec. 22-12-17w. Drlg. 225 ft.

Grant County

Kuhn Bros. No. 1 Alderman, C SW sec. 18-29-35w. Set 8-in. 2,476 ft.; R.U.S.T.

Panhandle Eastern Pipe Line Co. No. 1 Taggert, C sec. 11-30-37w. Set 10-in. 561 ft.; W.O.C.

Greenwood County

Ward McGinnis et al No. 1 Henly Estate, SW cor. sec. 25-25-9. T.D. 2,234 ft.; H. F.W.; P.B.

Western Kansas O. & R. Co. No. 1 Taylor, SE SE SW sec. 6-27-12. Drlg. 1,400 ft.

Hamilton County

Denver Prod. & Ref. Co. No. 1 Porter, SW SW NE sec. 30-25-41w. Drlg. 4,953 ft.

Harper County

Magnolia Pet. Co. No. 1 Freeman, SE NW SW sec. 3-31-6w. Chat 4,275 ft.; drlg. 4,420 ft.

Harvey County

Bell O. & G. Co. et al No. 1 Austin, SE NE NE sec. 28-23-1e. Lansing 2,368 ft.; Miss. 3,021 ft.; drlg. 3,160 ft.

E. I. Shaffer et al No. 1 Epp, SE cor. sec. 15-23-3w. Drlg. 3,451 ft.

Simpson & Noble et al No. 1 Pierce, SW SE NE sec. 25-22-2w. Chat 2,988 ft.; H.F.W. 2,990 ft.; inc. water 3,016-23 ft.

Kearny County

J. L. Murphy No. 1 Masonic Home, C NW sec. 1-26-36w. T.D. 519 ft.; fsg.

Kiowa County

Stanolind Oil & Gas Co. and Amerada Pet. Corp. No. 1 Pyle, Jr., C NW NE sec. 8-29-16w. Topeka 3,590 ft.; Lansing 4,215 ft.; drlg. 4,470 ft.

Marion County

Western Kansas O. & R. Co. et al No. 1 Suderman, SE SW NW sec. 22-20-2e. Drlg. 920 ft.

McPherson County

C. E. Ash Drilling Co. No. 1 Broman, NE NE NW sec. 19-17-4w. Rig.

Bradley Bros. No. 1 Barnhoit, SW SW SE sec. 30-30-5w. Chat 3,292 ft.; T.D. 3,333 ft.; P. 92 B.O. in 3 hrs.

Fred C. Frank et al No. 1 Doles, SE NW NE sec. 12-19-1w. H.F.W. 1,870 ft., T.D.; S.D. for water well.

Smith et al No. 1 Larson, NW NW SW sec. 35-18-5w. Miss. 3,360 ft.; T.D. 3,503 ft.; D.&A.

Wamhoff et al No. 1 Nuse, SE NE SW sec. 18-18-4w. S.D. 1,320 ft.

Mitchell County

Geo. Siedhoff et al No. 1 Greiss, SW SW

SE sec. 16-8-10w. Rng. 5-in. 3,524 ft.

Ness County

Jones & Lane No. 1 Page Milling Co., SE SE NW sec. 36-18-26w. U.R. 15-in. 700 ft.

Newton Dev. Co. No. 1 Tenny, NW NW SE sec. 19-18-25w. Inc. oil 4,400-02 ft.; 3,500 ft. O.I.H. at 4,406 ft.; S.D.

Pratt County

Atlantic Ref. Co. et al No. 1 Runyon, SW NW NE sec. 11-27-13w. S.S.O. 4,032 ft.; drlg. 4,033 ft.

Reno County

Carter Oil Co. et al No. 1 Bontrager, C E½ NE NE sec. 26-24-5w. Drlg. 3,450 ft.; S.G.

Imo O. & G. Co. et al No. 1 Watkins, SE cor. sec. 14-22-7w. Drlg. 2,500 ft.

Rice County

Bell O. & G. Co. et al No. 1 Wilkins, NW NW NE sec. 23-21-9w. Simp. 3,591 ft.; Sil. 3,643 ft.; T.D. 3,662 ft.

Comanche Oil Co. No. 1 Cramm, SW SW SE sec. 15-19-9w. Pay 2,946-47 ft.; acd.; P. 660 B.O. in 24 hrs.; reacd.

Gillispie et al No. 1 Strong, NE NE NW sec. 9-18s-8w. R.U.

John Hanna et al No. 1 Marshall, NE NW NW sec. 30-18s-8w. Run 12-in. to 332 ft.

Hipple et al No. 1 Wernet, NE NE NW sec. 11-20-6w. Sil. 3,636 ft.; drlg. 3,664 ft.

H. V. Holland et al No. 1 Brothers, SE cor. sec. 12-21-7w. Drlg. 2,230 ft.

Fred Phillips et al No. 1 Hubenett, SW NW SW sec. 23-20-6w. Set 5-in. to 3,-334 ft.; acd. P. 252 B.O. in 24 hrs.

C. E. W. Skiles et al No. 1 Helmer, NW NW NE sec. 7-19-18w. Sil. 3,450 ft.; T.D. 3,455 ft.; H.F.W.

W. E. Witt et al No. 1 Fair, NW SE SE sec. 4-22-8w. Set 10-in. 2,201 ft.; fsg. 2,-245 ft.

Rooks County

Brunson Drlg. Co. et al No. 1 Casey, SE SE NE sec. 22-9s-16w. Set 5-in. 3,555 ft.; Cong. 3,570 ft.; drlg. 3,647 ft.

C. R. Craft et al No. 1 Ziegler, NE NE SW sec. 8-10-16w. Topeka 2,850-60 ft.; R.U. S.T.

Graham et al No. 1 Fike, SW cor. sec. 9-9-17w. S.D. 3,326 ft.

S. C. Hoel et al No. 1 Ives, SW SW NE sec. 11-7-18w. Sil. 3,493 ft.; T.D. 3,565 ft.; D.&A.

J. H. Lester No. 1 Methene, SE SE NE sec. 29-10-20w. Fsg. 3,818 ft.

Rush County

Crawford et al No. 1 Jones, NW cor. sec. 35-17-16w. Set 15-in. 325 ft.; W.O.C.

Duwe & Brouk No. 1 Lebsack, SE SE NE sec. 13-16-16w. Sil. 3,492-95 ft.; 1,500 ft. sulfur water in hole in 2½ hrs.; T.D. 3,512 ft.; S.D.O.

S. A. Murphy et al No. 1 Roth, NW NW SW sec. 21-16-18w. Reagan 3,580 ft.; S.G.

Russell County

Boyle & Grossman No. 1 Deines, SE SE SW sec. 36-15-15w. Sil. 3,451 ft.; H.F. W. 3,471-76 ft.; T.D. 3,179 ft.

Boyle & Grossman No. 1 Steinert Est., NE SE NW sec. 34-15-15w. Set 8-in. 2,-820 ft.; drlg. 2,880 ft.

Winkler & Koch No. 1 Jones, SE SE NW sec. 22-14-13w. Sil. 3,180 ft.; S.D.O.

Scott County

Olson Drlg. Co. et al No. 1 Nolan, NW NW NE sec. 13-19-33w. Miss. 4,810 ft.; T.D. 5,035 ft.; D.&A.

Sedgwick County

E. H. Moore, Inc., et al No. 1 Naughter, SW SW NW sec. 29-29-1e. K.C. 2,775 ft.; drlg. 3,380 ft.

Roxana Drlg. Co. et al No. 1 Woodman, SW NW SW sec. 26-26-1w. S.D. 2,469 ft.

Ryan Cons. Co. et al No. 1 Williams, NW NW SE sec. 17-25-2w. Sil. 4,025 ft.; T.D. 4,063 ft.; D.&A.

E. B. Shawver No. 1 Furman, SW NE SE sec. 24-29-3w. Set 7-in. 3,324 ft.; drlg. 3,609 ft.

Union O. & R. Co. et al No. 1 Howell, SW cor. sec. 6-29-1e. Drlg. 330 ft.

Stafford County

Rose Spring Drlg. Co. et al No. 1 Gray, NW cor. sec. 11-24-13w. Sil. 4,030-34 ft.; T.D.; D.&A.

Stanolind O. & G. Co. No. 1 Francis, NE NE NW sec. 26-22-13w. Drlg. 225 ft.

Sumner County

John Burton et al No. 1 Springate, NE NE sec. 30-32-1w. T.D. 91 ft.; abd.

Douglass & Gear No. 1 Strickler, SW NW NE sec. 30-32-1w. Drlg. 1,775 ft.

Faulkner et al No. 1 Nevitt, NE NW NE sec. 36-32-2e. P.B. 3,570 ft. to 2,830 ft.; P. 100 B.O. in 3 days; comp.

Graham et al No. 1 Dawson, NW NW NW sec. 4-33-2w. Base Miss. 4,250 ft.; S.D. 4,255 ft.

W. M. McKnab No. 1 Blair, SW cor. sec. 7-30-1e. Fsg. 200 ft.

Trego County

W. I. Southern, Inc., No. 1 Latimer, NW NW SE sec. 19-15-22w. U.R. 7-in. 4,-315 ft.

F. L. Thorn et al No. 1 Dix, SE SE SW sec. 31-14-24w. Andy. 1,715 ft.; drlg. 3,188 ft.

Turner et al No. 1 Rogers, C SW sec. 3-15-23w. Anhy. 1,650 ft.; drlg. 4,015 ft.

Woodson County

M. B. Allen No. 1 Flack, NE NE NW sec. 1-26-14. 8d. 1,313-42 ft.; T.D. 2,300,000 ft. gas.

B. & B. Oil Co. No. 1 Lockard, NW NW NE sec. 2-26-13e. Drlg. 1,040 ft.

Morris et al No. 1 Koening, SE SE NW sec. 35-24-15. T.D. 1,231 ft.; S.D.

Fred Rapp No. 1 Houghland, NW NW SE sec. 2-25-15. Drlg. 900 ft.

Pontotoc County

Boettcher O. & G. Co. No. 1 Cann, SE NW NE sec. 25-4n-7e. Mayes 3,660 ft.; Wd. 3,760 ft.; Hunton 3,879 ft.; coring.

Clark Drlg. Co. et al No. 1 Richardson, SE SE NW sec. 30-4-8. Syl. 4,310 ft.; Viola 4,355 ft.; drlg. 4,620 ft.

W. A. Delaney et al No. 1 Payton, NE NE SE sec. 1-4-7. O.W.D.D.; Viola 3,962 ft.; Dense 4,015 ft.; Dol. 4,080 ft.; drlg. 4,-185 ft.

Norbla Oil Co. No. 1 Kennedy, SE SE NE sec. 13-2-5. Arbuckle 850 ft.; drlg. 1,-320 ft.

Papoose Oil Co. et al No. 1 Jones, NW SE NW sec. 2-4-5. Viola 2,595 ft.; T.D. 2,-840 ft.; run Schlumberger; S.D.O.

Roodhouse et al No. 1 Booth, SE NW SE sec. 20-2-6. T.D. 4,966 ft.; P.B. 4,397 ft.; acid.; flw. 52 B.O. gross in 2 hrs.; swbd. dry; tstg.

Southern Oil Co. No. 1 Young, NE NE SE sec. 17-3-7. T.D. 990 ft.; U.R.

Union Dev. Co. No. 1 Abbott, SW NW NE sec. 34-3-6. Hunton 148 ft.; drlg. 2,148 ft.

Pottawatomie County

Atlantic Ref. Co. No. 1 Dooley, SE SE SW sec. 9-11-5. Set 7-in. 4,917 ft.; T.D. 4,-919 ft.; W.O.C.

Mid-Continent Pet. Corp. No. 1 Ne-Thah-Pea-Se, SE SE NE sec. 24-11-4. Drlg. 4,270 ft.

Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Billington-B, SW SE SW sec. 32-9-3e. 2nd Wilcox 5,316 ft.; T.D. 5,321 ft.; P.B. 5,238 ft.; acd.; flw. 349 B.O. net in 6 hrs., through tbg.

C. A. Yoakum No. 1 Ramsey, SE SE NE sec. 27-6-4. Spd.

Washita County

John Koberg No. 1 Harms, NW NW NE sec. 6-10-16w. T.D. 3,205 ft.; repairing pumps.

SOUTHERN OKLAHOMA

Carter County

Shell Pet. Corp. No. 1 Smith, NW SE NE sec. 30-5s-1e. T.D. 4,222 ft.; D.&A.

Coal County

Carter Oil Co. No. 1 Clayton, C W½ NE SW sec. 27-2n-9e. Bldg. rig.

Comanche County

E. B. Hane No. 1 Duper, NW cor. sec 21-2n-13w. T.D. 250 ft.; abd.

Frank Scott No. 1-A Kuntz, SE NE SE sec. 21-4n-11w. T.D. 2,793 ft.; S.D.

Cotton County

Indian Territory Illuminating Oil Co. No. 1 Collins, NE cor. sec. 18-4s-10w. Drlg. 2,250 ft.

Jackson County

Ace Gutowsky No. 1 Booker, NW cor. sec. 33-2n-18w. T.D. 580 ft.; S.D.

Ace Gutowsky No. 1 Howard, NE SW NW sec. 10-3n-19w. T.D. 901 ft.; fsg.

E. L. Lippert et al No. 1 Miller, NW cor. sec. 4-2n-18w. Drlg. 150 ft.

Johnston County

Patton et al No. 1 McCrummins, C SW SW NE sec. 16-1s-6e. S.D. 1,165 ft.

Jefferson County

Massad & Swansberger No. 1 Barrett, NE cor. SE SE sec. 14-6s-6w. T.D. 1,842 ft.; S.D.

Love County

Sinclair Prairie Oil Co. No. 1 Stockton, SE SE SW sec. 26-6s-2w. T.D. 8,583 ft.; P.B. 6,927 ft.; F. 45 B.O. while rng tbg.

McCurtain County

Wilcox O. & G. Co. No. 1 Newman, SW SW SE sec. 30-7s-23e. T.D. 1,018 ft.; U.R. at 990 ft.

Marshall County

Neff-Godfrey No. 1 Chapman, SW SE SW sec. 36-4s-4e. Drlg. 1,320 ft.

Stuart & Taylor No. 1 Chestnut, NE cor. sec. 23-8s-5e. T.D. 782 ft.; S.D. for tractor.

Stuart & Taylor No. 2 Chestnut, 200 ft. S and 400 ft. W of NE cor. sec. 23-8s-5e T.D. 751 ft.; S.D.

Murray County

O. O. Owens No. 1 Fryer, NE SE NE sec. 34-1s-3e. Bromide sd. 2,570-74 ft. T.D.; S.D.

Power Oil Co. No. 1 Lancaster Trust, C SW NE sec. 10-1-2e. T.D. 3,438 ft.; laying wtr. line.

Pushmataha County

Erle Halliburton et al No. 1 Bagwell, SW NE NE sec. 30-3s-15e. T.D. 3,650 ft.; crooked hole; P.B.

Stephens County

Carter Oil Co. No. 1 Harley, C NE NE sec. 24-2s-4w. S.O. 7,133-36 ft., 7,216 ft. and 7,220-30 ft.; drlg. 7,260 ft.

Coline Oil Co. No. 1 Johnson, C SW SE SE NE sec. 1-2n-8w. Drlg. 7,645 ft.

Ed Parsons No. 1 Blake, C SW NW sec. 22-2n-8w. Drlg. 4,730 ft.

Tillman County

Cavens et al No. 1 Southerland, SW SW NW sec. 35-4s-16w. R.U. and S.D.

Magnolia Pet. Co. No. 1 Brown, SW SE NE sec. 21-3s-18w. Canyon 3,480 ft.; Strawn 4,335 ft.; drlg. 6,145 ft.

Tom Walker No. 1 Bowman, SW SW NW sec. 10-4s-17w. T.D. 20 ft.; S.D.

OKLAHOMA

Week Ending June 17

NORTHERN OKLAHOMA

Beckham County

Bud Lewis No. 1-A Douglas C SE NE sec. 21-8n-26w. Drlg. 260 ft.

Mid-American Oil Co. No. 1-A Biscoe, SW cor. sec. 28-8-22w. Drlg. 2,200 ft. in Dolomite.

Caddo County

Clyde Becker et al No. 1 Pharris, SE SE NW sec. 24-6-12w. Drlg. 5,200 ft.

Cleveland County

W. R. Hollenbeck No. 1 Norman, NW NW NE sec. 17-9-2w. T.D. 7,178 ft.; fshg.

Creek County

L. B. Jackson No. 1 Alberty, NE NE NW sec. 25-18-9. Drlg. 200 ft.

M. W. Mosier et al No. 1 Holcomb, SE SW NW sec. 19-18-8. T.D. 3,002 ft.; H.F.W.; S.D.

Garvin County

Nels Burton et al No. 1 Burch, SE SE SW sec. 3-3n-1w. T.D. 8,465 ft.

Carter Oil Co. No. 1 Potts, C E½ SE NW sec. 36-1n-3w. Woodford 1,265 ft.; S.O. 1,198-1,204 ft.; drlg. 1,350 ft.

Grady County

Gulf Oil Corp. No. 1 Thomas, SW NW NW sec. 14-4-5w. Drlg. 4,120 ft.

Grant County

Carter Oil Co. et al No. 1 Crisman, C W½ SW NW sec. 16-25-3w. Drlg. 4,987 ft.

Carter Oil Co. et al No. 1 Kolarik, NW SW sec. 4-26-5w. Drlg. 5,330 ft.

Haskell County

Continental Oil Co. No. 1 Ferguson, SW SE NE sec. 33-8-20. T.D. 5,597 ft.; W.O.C.

Hughes County

W. O. Allen No. 1 Barnard, SW cor. sec. 24-8-8. Booch 2,825 ft.; Crom. 2,995 ft.; cg. 3,335 ft.

C. E. Beal No. 1 Eason, NE NE NW sec. 7-9-11. Wilcox 3,900 ft.; T.D. 3,944 ft.; D.&A.

Burke-Greis Oil Co. No. 1 Rhea, SW SW SE sec. 14-10-9. Drlg. 95 ft.

Carter Oil Co. No. 1 Hamilton, C W½ NE SW sec. 33-4-9. Sylvan 5,474 ft.; drlg. 5,885 ft.

E. H. Moore, Inc., No. 1 Buck, NW SW SW sec. 21-8-10. Wapa. 2,939 ft.; drlg. 2,975 ft.

Moroney & Healey No. 1 Field, C NW SW sec. 11-9-11. T.D. 2,798 ft.; est. 2,000,000 ft. gas; S.D. for water.

Texas Co. No. 1 Cox, NE NW NW sec. 23-9-8. Senora 1,860 ft.; drlg. 2,885 ft.

Kay County

Black Gold Oil Co. No. 2 Cooley, SW cor. sec. 25-28-4e. T.D. 1,391 ft.; caving; to set 8-in.

Kiowa County

Kiowa Oil Corp. No. 1 Finder, C SW NE sec. 4-6-20w. G.W. 936-940 ft.; dry; S.D.

Latimer County

Clark Drlg. Co. et al No. 1 Wilson, C SE SE sec. 15-5-18. T.D. 6,515 ft. in Atoka; S.D.O.

Lincoln County

Cimarron Oil Corp. No. 1 Ornor, C SW SE sec. 31-17-2e. Dewey 2,940 ft.; upper Tonk. 2,990 ft.; drlg. 3,420 ft.

Logan County

Shell Pet. Corp. et al No. 1 Waddle, SW SE NW sec. 36-15-4w. Drlg. 3,912 ft.

Noble County

Herndon Drlg. Co. No. 1 Baggett, SE cor. sec. 13-21-3e. Drlg. 2,190 ft.

Phillips Pet. Co. No. 1-A Neil, NE cor. sec. 15-23-2w. Arbuckle 5,025 ft.; drlg. 5,146 ft.

Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Johnson, NW NW SE sec. 4-20-2w. Wilcox 5,306 ft.; T.D. 5,418 ft; S.D.

Okfuskee County

F. W. Merrick No. 1 Mackey, NE NE SW sec. 29-11-10. Drlg. 875 ft.

Riverland Oil Co. No. 1 Board, NE NW SE sec. 10-13-10. Set 6-in. 2,788 ft.; T.D. 2,840 ft.

Osage County

Norbla Oil Co. No. 1 Osage, SE cor. sec. 35-23-6. Drlg. 1,875 ft.

Pawnee County

Carter Oil Co. No. 1 Wells, C E½ SE NW sec. 30-23-5. Layton 2,310 ft.; drlg. 2,-544 ft.

ARKANSAS

Ashley County

Phillips Pet. Co. No. 1 Godfrey, C S½ SW NW sec. 18-17-9. Drlg. 2,230 ft.

Calhoun County

I. P. B. Oil Corp. No. 1 Herrisberger, sec. 9-11-13. 10-in. cmt. 109 ft.; abd.; will not drill.

Columbia County

Robt. Keene et al No. 1 Runyon, NW SE NE sec. 1-16s-21w. 13-in. cmtd. 90 ft.

Standard of La. No. 1 J. P. McKean, SW sec. 8-16s-22w. M.I.M.

Crittendon County

Stanley Oil Corp. No. 1 Danner, C sec. 18-8n-9e. S.D. 300 ft.

Howard County

Beetcher O. & G. No. 1 Ark. Portland Cmt. Co., sec. 28-11-27. Drlg. 2,160 ft.

Lonoke County

Frank F. Silver No. 2 Chambers, sec. 17-2n-7w. Cg. oil sd. 1,495-1,500 ft.; T.D. 1,500 ft.; arg. run Schlumberger.

Miller County

E. H. Moore No. 2 Dale, 660 ft. N and W, C sec. 24-15-26. T.D. 7,310 ft.; D.&A.

Standard Oil Co. No. 1 Sarah Harvey, SW SW SW sec. 33-16s-26w. T.D. 5,775 ft.; D.&A.

Miller County—Rodessa

Allred & Allred No. 1 E. A. Rector, SE W½ W½ sec. 16-20-28. Loc.

F. W. Burford No. 1 A. A. Capps, W½ sec. 14-20-28. Drlg. 2,550 ft.

F. W. Burford No. 1 Easton, E½ SW SE sec. 11-20-28. Drlg. 2,150 ft.

F. W. Burford No. 1-B Gerald, NE cor. sec. 15-20-28. Drlg. 3,515 ft.

F. W. Burford No. 1 Perdue, SE NE SE sec. 11-20-28. Drlg. 2,150 ft.

Burnham & Manley No. 1 E. A. Rector, SE sec. 17-20-28. Loc.

Tony DeGrazier No. 1 E. A. Rector, SE cor. sec. 17-20-28. Loc.

H. L. Hunt No. 1 Wommack, SE sec. 10-20-28. Loc.

W. M. Layton No. 1 Terry, NW cor. sec. 14-20-28. Drlg. 3,195 ft.

McClanahan et al No. 2 A. A. Capps, SW sec. 11-20-28. R.U.

McClanahan et al No. 3 Capps, sec. 11-20-28. R.U.

Monroe County

J. H. Coker No. 1 McClain, NE NW sec 15-4n-2w. Drlg. 50 ft.

Ouachita County

Copenhaver Oil Corp. No. 1 J. E. Evans, sec. 20-11-19. Drlg. 955 ft.

Pike County

Beckwith & Cress No. 1 Hendrick, NW SW sec. 16-8s-25w. T.D. 312 ft.; U.R.

St. Francis County

Manning & Martin No. 1 R. C. Gregg, sec. 20-5n-5e. S.D. 1,500 ft.

Union County—Schuler

E. M. Jones et al No. 1 First Natl. Bank, NW NE NE sec. 19-18-17. Cg. 5,648 ft.

E. M. Jones et al No. 1 K. Gallagher, NW SW sec. 19-18-17. 10-in. cmt. 854 ft.

E. M. Jones et al No. 1 Marine Oil Co. fee, NW SW SE sec. 17-18-17. 10-in. cmt. 816 ft.

Ed. M. Jones et al No. 1 C. H. Murphy, NW Lot 6, NW¼ sec. 19-18-17. Drlg. 5,014 ft.

Ed. M. Jones et al No. B-1 Murphy Land Co., SW SE NE sec. 13-18-18. Cg. 5,-559 ft.

Lion Oil Rfg. Co. No. A-1 M. D. Justiss, NE NW NE sec. 19-18-17. Drlg. 5,260 ft.

Lion Oil Ref. Co. No. 2-A Edna Morgan, NW NE SW sec. 18-18-17. Cg. 5,619 ft.

Lion Oil Ref. Co. No. 3-A Edna Morgan, SE Lot 1, SW sec. 18-18-17. Drlg. 3,-805 ft.

Lion Oil Ref. Co. No. 2-B Morgan, NE NW SE sec. 18-18-17. T.D. 5,651 ft.; rep. boilers.

Marine Oil Co. No. 1 fee, NW SW SW sec. 17-18-17. Drlg. 5,579 ft.

Marine Oil Co. No. 1 E. M. Jones, SW NW SW sec. 17-18-17. Drlg. 4,637 ft.

Phillips Pet. Co. No. 1 E. Gan, SW SE NE sec. 18-18-17. Drlg. 4,600 ft.

Phillips Pet Co. No. 2 E. Gan, SE SW NE sec. 18-18-17. Cg. 5,523 ft.

Phillips Pet. Co. No. 1 M. Justiss, SE Lot 6, NW sec. 18-18-17. Cg. 5,802 ft.

Phillips Pet. Co. No. 2 M. Justiss, NE Lot 2, SW sec. 18-18-17. D.S. stk. 5,-291 ft.

Alice Sydney Oil Co. No. 1 Pewledge Est., SW SW SE sec. 7-18-17. Cg. 5,967 ft.

Alice Sydney Oil Co. No. 2 Morgan, sec. 18-18-17. Cg. 5,586 ft.

Union County—Other

Sklar Oil Corp. No. 1 W. T. Fitzgerald, SW NW SW sec. 8-18-15. 7-in. cmt. 2,098 ft.; W.O.S.R.; T.D. 2,140 ft.

W. D. Wingfield et al No. 1 So. Kraft Corp., SW NE sec. 18-16-14. T.D. 3,636 ft.; S.D. rig repair.

LOUISIANA

NORTH LOUISIANA PROVEN

Caddo—Rodessa

Blackwell O. & G. Co. No. 3 Neugent, sec. 8-23-16. T.D. 7,202 ft.; shows; prep. run csg.
Clark Oil Corp. No. 2-A Sharp, SW SE sec. 4-23-16. Drlg. 5,734 ft.
Holcomb & Thomasson No. 1 Dillon, SE sec. 4-23-16. Drlg. 1,269 ft.
J. E. Jones No. 1-A Parker, SW cor. sec 4-23-16. T.D. 6,027 ft.; flwg. by hds.; tstg.
R. W. Norton No. 1 Payne, C SE SE sec 27-23-16. T.D. 10,600 ft.; tstg.
R. W. Norton No. 11 Starke (a), NE sec. 17-23-16. Drlg. 5,312 ft.
R. W. Norton No. 13 Starke, NW sec. 17-23-16. Drlg. 2,608 ft.
Roberts Drlg. Co. No. 1 E. G. Finley, NW sec. 1-23-16. R.U.
Standard Oil of La. No. 4 Sarah Kaempfer, NE sec. 9-23-16. 7-in. cmtd. 5,894 ft.; T.D. 5,945 ft.
Standard Oil of La. No. 2 J. W. Farmer, NW sec. 7-23-15. Drlg. 5,875 ft.
Standard Oil of La. No. 1-B Emma J. Parker, SE NE sec. 9-23-16. Drlg. 5,887 ft.
Standard Oil of La. No. 2 O. A. Zyiks, NE SE sec. 9-23-16. Drlg. 5,850 ft.
Surf Oil Co. No. 1 Allison, NE sec. 8-23-16. T.D. 6,050 ft.; rng. lnr.
United Gas No. 8 fee 574, NW cor. sec. 16-23-16. Drlg. 4,840 ft.
United Gas No. 4 Starke, SE sec. 8-23-16. Drlg. 5,534 ft.

N. LOUISIANA WILDCATS

Bienville Parish

DeSota O. & G. Co. No. 1 Ashley, SW SE sec. 15-16-10w. Rmg. 5,580 ft.
Hunt Oil Co. et al No. 1 Bodcaw, SE sec. 30-14-5w. Drlg. 7,220 ft.
Lide & Greer No. 2 Davis, NW NE sec. 12-16-5w. Drlg. 5,623 ft.
McDowell et al No. 1 Locke, NE cor. sec. 9-15-10. Fsg. 2,921 ft.

Bossier Parish

Arkansas-La. Gas Co. No. 15-B Bodcaw, SW sec. 11-19-11. Drlg. 600 ft.
Arkansas-La. Gas Co. No. 2 T. Wilson, NW SW sec. 8-17-11. Drlg. 958 ft.
Producers O. & G. No. 1 R. Johnson, NE sec. 5-17-11. T.D. 5,220 ft.; D.&A.
Triangle Drlg. Co. No. 1 C. Howell, NW sec. 26-17-12. T.D. 5,200 ft.; P.B. and tstg.
United Gas No. 3 L. Schmitt, NW sec. 14-17-12. 7-in. 4,175 ft.; T.D. 4,312 ft.; W.O.C.S.

Caddo Parish

J. G. Abney No. 1 Thigpen & Herold, NW SW sec. 15-21-16. T.D. 1,834 ft.; prep. D.D.
W. D. Chew No. 4 U. S. Govt. O.W.D.D.; sec. 5-20-16. 4-in. cmt. 2,331 ft.; W.O. C.S.
T. B. Donnell No. 5 Stokeley, SW sec. 5-20-16. Comp.; pmp. 5 B.P.D.; T.D. 951 ft.
W. C. Feazel No. 1 Pitts, SE NE sec. 8-23-16. Drlg. 5,770 ft.
C. L. Ferguson et al No. 1 Cooney, sec. 35-21-16. T.D. 1,645 ft.; S.D., rig rep.
Hancock & Uhlman No. 3 Helpman, C sec. 16-21-16. R.U.
W. J. Hunter et al No. 1 Stoer, NW SW NE sec. 10-15-15. T.D. 6,560 ft.; P.B. and tstg.
Marine Exp. Co. No. 1 Herold, NW sec. 10-21-16. 8-in. 999 ft.; T.D. 1,003 ft.; W.O.C.S.
Orr et al No. 1 Acme Fee, Cen. sec. 15-21-16. 6-in. 998 ft.; T.D. 1,002 ft.; W. O.C.S.
Frank Perkins No. 1 Stiles, SW SW sec. 33-21-16. W.O.S.R.; T.D. 945 ft.
Prairie River Synd. No. 1 Hutchinson, SW NW sec. 15-15-12. Drlg. 8,098 ft.
J. J. Shulman No. 1 Bickham, NE sec. 28-21-5. 6-in. 1,345 ft.; T.D. 1,645 ft.; W.O.C.S.
Stanolind O. & G. Co. No. 1 Lloyd, SW NE sec. 12-21-15. T.D. 1,609 ft.; comp.; pmp. 74 B.P.D.
Surf Oil Co. No. 1 Hyman, SE sec. 10-20-15. Drlg. 1,620 ft.
R. G. Trippett & D.C.R.O. No. 1 School Bd., NE sec. 16-19-14. Drlg. 2,221 ft.
Ward DeLaney & Evans No. 1 W. L. Sibley, NW NW SW sec. 15-19-14. R.U.

Claiborne Parish

Atlantic Rfg. Co. No. 2 F. B. King, W½ NE SE sec. 35-21-5. 5-in. cmt. 5,200 ft.; T.D. 5,222 ft.
Atlantic Ref. Co. No. 3 King, E½ SE SE sec. 35-21-5. Drlg.
Atlantic Ref. Co. No. 1 Tatum, N½ NE SE sec. 31-21-4. Loc.
Atlantic Ref. Co. No. 2 Tatum, S½ NE SE sec. 31-21-4. 10-in. cmt. 812 ft.
Gulf Ref. Co. No. 2 Henry, N½ NW NE sec. 31-21-4. Cg. 4,365 ft.
Harry Hanbury No. 1 R. Vaughn, S½ SW SE sec. 25-21-5. 10-in. 844 ft.
Hollifield & McFarland No. 2 M. Patton, W½ SW SE sec. 31-21-4. Drlg. 5,310 ft.
Love Bros. No. 1 J. J. Henry, S½ NE NE sec. 31-21-4. Drlg. 3,917 ft.
Love Bros. No. 2 J. J. Henry, N½ NE NE sec. 31-21-4. Drlg. 392 ft.
Lyons & Neely No. 1 Bean, W½ SE NE sec. 31-21-4. Drlg. 4,822 ft.
L. O. McMillan No. 1-A McDonald, E½ NW NW sec. 31-21-4. Drlg. 3,852 ft.
Magnolia Pet. Co. No. 3 English, N½ SE NW sec. 31-21-5. Comp.; flw. 280 B.P. D.; T.D. 5,283 ft.
Magnolia Pet. Co. No. 4 English, N½ SW NE sec. 31-21-4. Drlg. 1,820 ft.
Magnolia Pet. Co. No. 5 English, N½ NE NW sec. 31-21-4. R.U.
Magnolia Pet. Co. No. 2, H. E. Patton, SW sec. 36-21-5. Comp.; flw. 245 B.P.D.; T.D. 5,312 ft.
Magnolia Pet. Co. No. 3 H. E. Patton, W½ SW SW sec. 36-21-5. R.U.
C. R. Schuster et al No. 2 M. S. Patton, S½ NW NE sec. 1-20-5. Drlg. 5,228 ft.
Scouts Oil Co. No. 2 R. Vaughn, W½ NE NW sec. 36-21-5. 5-in. 5,260 ft.; T.D. 5,288 ft.
Sells Pet. Co. No. 1 W. Jones, W½ SE SE sec. 31-21-4. Drlg. 2,500 ft.
Shreveport Oil Corp. No. 1 Edwards, NE sec. 16-20-5w. T.D. 4,350 ft.; cmtd. surf. csg.
Standard Oil of La. No. 2 F. B. King, et al, NE sec. 35-21-5w. Drlg. 5,275 ft.
J. C. Trippett Drlg. Co. No. 1 Aycock, N½ NE SE sec. 1-20-5. Drlg. 4,025 ft.
United Gas No. 2 Brownfield, 660 ft. N and E, SW NW sec. 5-19-5w. Drlg. 749 ft.

De Soto Parish

Clear Lake Oil Co. No. 1 J. A. Wollums, NW sec. 29-12-12. Drlg. 20 ft.
Grogan Oil No. 1-A Ramsey, sec. 36-11-11. Comp.; flw. 184 bbls. 12 hrs.; T.D. 2,961 ft.
J. F. McMannan No. 1 Cook Ld. Co., SE sec. 16-16-11. 10-in. cmt. 135 ft.
Pullman Oil Co. No. 3 Ramsey, SE NE NW sec. 36-11-11. R.U.
Arthur D. Robinson No. 1 Allison, NW sec. 17-14-13. Drlg. 48 ft.

Franklin Parish

Jensen & Bailen No. 1 Grayson, NE sec. 36-12-6e. Drlg. 2,516 ft.

Grant Parish

Rogers Oil Co. No. 3 Swope, SW SW sec. 17-9-1e. R.U.

Lincoln Parish

B. O. D. C. and H. D. Easton No. 1 G. W. Dye, NE NE sec. 21-19-4w. T.D. 6,011 ft.; P.B. and tstg.
Crown Central Pet. Co. No. 1 T. F. Patton, N½ SE NW sec. 6-20-4. Drlg. 1,900 ft.
T. L. James No. 1 J. J. Spence, SW NE sec. 11-17-4. Drlg. 2,135 ft.
W. F. Lacey et al No. 1 T. F. Patton Est., W½ NW NE sec. 6-20-4. R.U.
Lyons & Neely No. 1 Aycock, S½ NW SW sec. 6-20-4. Drlg. 5,040 ft.
Lyons & Neely No. 1 W. H. Patton, N½ SW NW sec. 6-20-4. R.U.
Red Iron Drlg. Co. No. 1 Aycock, NW sec. 6-20-4. Drlg. 2,186 ft.

Red River Parish

John Droppleman No. 1 Wilson, SW sec. 23-13-11. T.D. 2,520 ft.; S.W. and abd.
Glassell & Whitehurst No. 1 LeLong, NE NW NE sec. 25-12-11. 13-in. cmt. 250 ft.
Perla Oil Co. No. 1 DeLong, 330 ft. S and E, C sec. 23-12-10. Drlg. 1,842 ft.
J. C. Prine No. 1 Haynes, SW sec. 20-13-10. D.S. stk. 1,900 ft.; fsg.
J. D. Wadley No. 1 McClelland, SE NE sec. 24-13-11. Tstd. dry; T.D. 2,550; W.O.
Yandell & Rogers No. 4 Caspari, SW SE SW sec. 27-13-11. 7-in. at 2,440 ft.; collapsed; milling on 7-in.; T.D. 2,472 ft.

Sabine Parish

Arcadia Ref. Co. No. 2 Henderson, SE sec. 30-9-13. Drlg. 1,503 ft.; rng. 7-in.
Ellis Prod. Co. No. 1 Wright, NW SW sec. 4-5-12. T.D. 2,216 ft.; tstg.
Kirk-Green-Way Inc. No. 1 Whitney Corp., NW NE sec. 8-9-13. Drlg. 7,508 ft.
Remine et al No. 1 4-L Co., SW SW sec. 7-5-12. R.U.
Willis & Dowden No. 1 Lynch, SW NE SW sec. 29-9-13. T.D. 1,608 ft.; arg. tst.

Webster Parish

Magnolia No. 2 D. G. Cox, SW SE NE sec. 22-21-10. Comp.; flw. 33 B.P.H. dist. and 5,000,000 ft. gas; T.D. 8,244 ft.
Magnolia Pet. Co. No. 2 G. W. Cole, NE NW NE sec. 27-21-10. Drlg. 7,599 ft.
Magnolia Pet. No. 6 Ira Cox, NE NE SE sec. 23-21-10. Drlg. 7,435 ft.
Magnolia Pet. Co. No. 2 A. J. McCook, SW sec. 22-21-10. Drlg. 6,190 ft.
Ohio Oil Co. No. 47 Bodcaw Acct. 2, SW SE sec. 15-21-10. Drlg. 4,715 ft.
Ohio No. 1 S. P. D. Coyle and W. Cox, SW SW SE sec. 23-21-10. Drlg.
Ohio Oil No. 1 T. Crichton, Acct. No. 2, SE NE sec. 21-21-10. Drlg. 4,715 ft.
Ohio Oil No. 1 L. M. Gardner, NE sec. 22-21-10. Drlg. 8,293 ft.
Ohio No. 7-B R. L. Holloway, 586 ft. N, 756 ft. E line, sec. 23-21-10. S.D. 4,819 ft.
A. G. Oliphant et al No. 1 Banks, NE NE sec. 34-21-10. Drlg. 2,160 ft.
L. R. Skidmore No. 1 Barnett, NE NW SW sec. 29-17-9. T.D. 3,785 ft.; S.D.
Standard Oil of La. No. 1 E. L. Stewart, SE SE SE sec. 32-21-10. Drlg. 7,987 ft
Woodley Pet. Co. No. A-2 L. C. Cox, SW NE sec. 22-21-10. Drlg. 7,522 ft.

Winn Parish

Georgetown Oil Co. No. 1 Tremont, sec. 19-10-1e. R.U.

SOUTH LOUISIANA FIELDS

Abbeville—Vermilion Parish

Continental Oil Co. No. 1 Brookshire, sec. 66-12s-3e. 18⅝-in. csg. 237 ft.; 13⅜-in. csg. 2,125 ft.; drlg. sh. 8,932 ft.

Bay St. Elaine—Terrebonne Parish

F. J. LeBlanc et al No. 1 Wurzlow, sec. 17-22s-18e. T.D. 10¾-in. csg. 1,008 ft.
Texas Co. No. 14 State, sec. 20-22s-18e. sd. and anhy. 5,012 ft.

Bayou Cocotrie—Terrebonne Parish

Shell Pet. Corp. No. 1 Pelican, sec. 35-17s-15e. T.D. 10,325 ft.; fsg.
Shell Pet. Corp. No. 2-B Realty Operators, sec. 18-17s-15e. 10¾-in. csg. 2,481 ft.; drlg. sd. 9,325 ft.

Big Lake—Cameron Parish

Union Sulphur Co. No. 1 Henry Hebert, sec. 18-12s-8w. Drlg. sd.&L. 7,456 ft.
Union Sulphur Co. No. 1 P. J. Herbert, sec. 18-12s-8w. Drlg. sh. 4,291 ft.

Caillou Island—Terrebonne Parish

Texas Co. No. 50 State, sec. 19-23s-20e. T.D. 4,857 ft.; P.B. 3,235 ft.; sdtrkd.; drlg. 3,302 ft.

Cameron Meadows—Cameron

Burton-Sutton Oil Co. No. 6 School Land, sec. 16-14s-13w. T.D. 4,068 ft.; I.P. 100 B.P.D.; pmpg.
Magnolia-Humble O. & R. Co. No. 20 Cameron Meadows, sec. 21-14s-13w. Drlg. L. 3,201 ft.

Charenton—St. Mary Parish

Pan American Prod. Co. No. 1 Landry, sec. 25-13s-9e. Drlg. 487 ft.
Pan American Ref. Co. No. 4 Laws Realty Co., sec. 30-13s-10e. Drk.
Pan American Prod. Co. No. 1 South Coast Corp., sec. 30-13s-10e. T.D. 7,923 ft.; rec. 1,000 ft. of P.L.O. on D.S.T. 7,906-23 ft.; 7-in. csg. 7,906 ft.; T.D. 8,503 ft.; tstd. S.W. 7,187-93 ft.; P.B.
Pan American Prod. Co. No. 1 Veeder, sec. 30-13s-10e. Drlg. sh. 2,810 ft.

Choctaw—Iberville Parish

Standard Oil Co. No. 10 Grove, sec. 52-9s-11e. Drlg. sh. 4,456 ft.
Standard Oil Co. No. 6 Gay, sec. 52-9s-11e. T.D. 4,709 ft.; salt; fsg.

Darrow—Ascension Parish

Humble O. & R. Co. No. 10 Darrow. T.D. 6,920 ft.; P.B. 3,200 ft.; drlg. sh. 5,437 ft.
Kiva Oil Co. No. 1 Duplessis, sec. 69-10s-2w. R.U.

Dog Lake—Terrebonne Parish

Texas Co. No. 5 State, sec. 5-22s-16e. 10¾-in. csg. 1,505 ft.; T.D. 7,231 ft.; P.B. 6,310 ft.; to sdtrk.; core sd. 7,028 ft.

Fausse Point—Iberia Parish

Texas Co. No. 3 State, sec. 35-11s-8e. 10¾-in. csg. 1,245 ft.; drlg. sh. 4,236 ft.

Four Isle—Terrebonne Parish

Texas Co. No. 9 L.L.&E., sec. 24-21s-16e. T.D. 5,116 ft.; rmg.

Garden Island—Plaquemines Parish

Texas Co. No. 50 State, sec. 19-23s-20e. Drlg. sdy. L. 4,006 ft.

Gillis—Calcasieu Parish

Fohs Oil Co. No. 19 Castle, sec. 13-9s-8w. Drlg. sh. 740 ft.
Union Sulphur Co. No. 3 Bol, sec. 2-9s-8w. Drk.
Union Sulphur Co. No. 15 Barbe, sec. 1 9s-8w. T.D. 6,724 ft.; I.P. 436 B.P.D.; ¼-in. ck.
Union Sulphur Co. No. 8 Castle, sec. 13-9s-8w. Drlg. sh. 5,884 ft.
Union Sulphur Co. No. 6 Kaufman, sec. 13-9s-8w. Drlg. 3,712 ft.

Gueydan—Vermilion Parish

Pure Oil Co. No. 6 Mulney Investment Co., sec. 34-11s-1w. 10¾-in. csg, 1,049 ft.; T.D. 4,300 ft.; rng. csg.

Hackberry—Cameron Parish

Burton-Sutton Joint Interest No. 2 A. Portie, sec. 22-12s-10w. Drlg. sh. 3,308 ft.
W. T. Burton No. 3 Lewis, sec. 22-12s-10w. R.U.
W. T. Burton Oil Co. No. 1 Henry, sec. 22-12s-10w. Drk.
W. T. Burton No. 4 Vincent, sec. 22-12s-10w. Drlg. 1,311 ft.
Emanon Oil Co. No. 1 Porter Ellender, sec. 21-12s-10w. Fsg. at 1,656 ft.
Stanolind O. & G. Co. No. 1-B Duhon, sec 27-12s-10w. Drlg. 1,520 ft.
Stanolind O. & G. Co. No. 8 Carter & Sweeney, sec. 22-12s-10w. R.U.
Stanolind O. & G. Co. No. 25-B Gulf Land fee, sec. 15-12s-10w. 20-in. csg. 158 ft. T.D. 7,672 ft.; fsg.
Stanolind O. & G. Co. No. 4 Lacey, sec. 27-12s-10w. R.U.
Stanolind O. & G. Co. No. 19 School Land, sec. 16-12s-10w. 10¾-in. csg. 1,942 ft.; drlg. sh.&L. 4,438 ft.
Stanolind O. & G. Co. No. 52 State, sec. 22-12s-10w. Drlg. sd. and gravel 1,109 ft.
Texas Co. No. 22-B State, Twp. 12s-9w. T.D. 7,628 ft.; 7-in. csg. 7,628 ft.
Union Sulphur Co. No. 9 Doiron, sec. 37-12s-10w. Drlg. sh. 5,412 ft.

Iowa—Jefferson Davis Parish

Shell Pet. Corp. No. 26 Heyd, sec. 40-13s-9e. T.D. 4,464 ft.; tstg.

Jeanerette—St. Mary Parish

Herton Oil Co. No. 1 Banta, sec. 40-13s-9e. 9⅝-in. csg. 7,030 ft.; T.D. 9,765 ft.; P.B. and sdtrkd.; drlg. 7,600 ft.
Herton Oil Co. No. 7 Carter, sec. 38-13s-9e. T.D. 8,011 ft.
Herton Oil Co. No. 8 Carter, sec. 44-13s-9e. Drlg. sh. 4,833 ft.

Jennings—Acadia Parish

Frank W. Bennett et al No. 1 Brethern and Christ Church, sec. 41-7s-2w. T.D. 4,875 ft.; fsg.
W. T. Burton Oil Co. No. 2 J. J. Roboria, sec. 42-9s-2w. Core sd. rk. 6,840 ft.
Cosmo Pet. Co. No. 1 M. E. Crusel, sec. 42-9s-2w. T.D. 1,950 ft.; tstd. S.W. 1,260-68 ft.; S.D.
Cosmo Pet. Co. No. 1 Jenning Heywood, sec. 41-9s-2w. Drlg. sh. 2,837 ft.
D. D. Feldman et al No. 1 McFarlain, sec. 41-9s-2w. Drlg. sh. 2,630 ft.
Glassell No. 1 Bourgeaux, sec. 41-9s-2w. Drlg. sh. 3,704 ft.
Glassell No. 3 Trushell, sec. 42-9s-2w Drlg. sh. 4,705 ft.
La. Crusader No. 108 Houssiere Latreille, sec. 47-9s-2w. Drlg. sh. 1,800 ft.
Louisiana Crusader Oil Co. No. 1 Hey wood, Martin Campbell Sur., sec. 42 9s-2w. R.U.
Port City Oil Co. No. 2 Jennings-Heywood, sec. 41-9s-2w. Drlg. 1,800 ft.
Reiter-Foster Oil Co. No. 1 M. C. Crusel et al, sec. 42-9s-2w. Spd.
Stanolind O. & G. Co. No. 11 Crowley, sec. 48-9s-2w. T.D. 1,989 ft.; pulling screen.
Superior Oil Prod. Co. No. 2 Iowa-Jennings, sec. 41. T.D. 7,026 ft.; 7-in. csg. 7,026 ft.; tstg.
Superior Oil Co. No. 5 Leckelt, sec. 42-9s-2w. R.U.
Superior Oil Co. No. 6 Leckelt, sec. 42-9s-2w. Drlg. sh. 5,735 ft.
Superior Oil Co. No. 2 Moresi, sec. 41-9s-2w. Drlg. sh. 3,826 ft.
Superior Oil Co. No. 1 Moresi, sec. 41-9s-2w. T.D. 6,732 ft.; 7-in. csg. 6,555 ft.

Lirette—Terrebonne Parish

Humble O. & R. Co. No. 1 Wurzlow, sec. 32-19s-19e. R.U.

Lafitte—Jefferson Parish

Texas Co. No. 4 Lafitte (O.W.D.D.), sec. 20-17s-24e. Stuck D.S.; sdtrkd. at 9,410 ft.; drlg. sh. 9,810 ft.
Texas Co. No. 2 Milling, sec. 20-17s-24e Drlg. sh. 976 ft.
Texas Co. No. 1 State-Bayou Norman sec. 28-17s-24e. Drlg. sh. 8,845 ft.

Lake Hermitage—Plaquemines Parish

Gulf Ref. Co. No. 7 Lafourche, sec. 12-18s-25e. Drlg. sdy. sh. 3,482 ft.

Lake Pelto—Terrebonne Parish

Texas Co. No. 17 State, sec. 17-23s-18e. Drlg. sd. 5,930 ft.

Leesville—Lafourche Parish

Texas Co. No. 42 Leesville, sec. 27-21s-22e. R.U.

Lockport—Cameron Parish

Magnolia Pet. Co. No. 6 Freeburg, sec. 9-10s-9w. T.D. 6,937 ft.; 7-in. csg. 6,898 ft.

New Iberia—Iberia Parish

Wm. Hellis No. 3 Schwing, sec. 57-12s-7e T.D. 5,019 ft.; P.B. and sdtrkd.; drlg. 3,756 ft.
Texas Co. No. 3 Bryant, sec. 25-12s-7e. Drlg. 2,312 ft.
Wm. Hellis No. 9 Bernard, sec. 54-12s-7e. T.D. 5,073 ft.; drlg. in sdtrkd. hole 3,256 ft.
Wm. Hellis No. 10 Bernard, sec. 54-12s-7e. R.U.
Wm. Hellis No. 5 Bullock-Burke, sec. 52-12s-7e. T.D. 5,147 ft.; 7-in. csg. 5,065 ft. comp.; no gauge.
Wm. Hellis No. 6 Bullock-Burke, sec. 25-12s-7e. R.U.
Texas Co. No. 3 Coleste, sec. 25-12s-7e. Drk.
Texas Co. No. 3 Duhe, sec. 26-12s-7e. T.D. 5,024 ft.; prep. to S.T.
Texas Co. No. 6-B Hanzen, sec. 54-12s-7e. T.D. 4,885 ft.; run Schlumberger.
Texas Co. No. 1 Schwing, sec. 71-12s-7e. Drlg. sh. 3,612 ft.

Roanoke—Jefferson Davis Parish

Humble O. & R. Co. No. 6 Kratzer, sec 11-9s-4w. T.D. 8,704 ft.; perf. csg. 8,706-08 ft.; installing flow valves.

South Roanoke—Jeff Davis Parish

Union Sulphur Co. et al No. 1 T.R.S. Farms Co., sec. 23-10s-4w. 12½-in. csg. 1,835 ft.; core sd. 8,391 ft.

Starks—Calcasieu Parish

Turnbull et al No. 2 Industrial Lbr. Co., sec. 19-9s-12w. T.D. 4,686 ft.; tstd. S.W.; W.O.

Sulphur—Calcasieu Parish

Union Sulphur Co. No. 846 fee, sec. 29-9s-10w. Drlg. sh. 5,392 ft.
Union Sulphur Co. No. 847 fee, sec. 29-9s-10w. Drlg. sh. 4,880 ft.

St. Martinsville—St. Martin Parish

Tide Water Oil Co. No. 1-C Smedes, sec 57-11s-6e. T.D. 9,645 ft.; heaving sh.; D.S. stuck; abd.
Tide Water Oil Co. No. 5 Smedes, sec. 57-11s-6e. R.U.

Tepetate—Acadia Parish

Continental Oil Co. No. 1 Guilery, sec. 34-7s-2w. T.D. 8,622 ft.; abd.
Continental Oil Co. No. 3-D Homeseekers Dev. Co., sec. 34-7s-2w. Drlg. sd. 917 ft.

Valentine—Lafourche Parish

Pan American Prod. Co. No. 7 Harang, sec. 7-17s-20e. Drlg. sd.&L. 5,687 ft.
Pan American Prod. Co. No. 8 Harang, sec. 9-17s-20e. Drlg. sh. 5,186 ft.
Pan American Prod. Co. No. 9 Harang, sec. 9-17s-20e. R.U.

Vinton—Calcasieu Parish

Katina Oil Co. No. 1 Vincent, sec. 34-10s-12w. 8-in. csg. 1,108 ft.; T.D. 3,236 ft.; run Schlumberger.
Superior Oil Co. No. 1 Gray, sec. 4-11s-12w. Drk.

S. LOUISIANA WILDCATS

Acadia Parish

H. E. Dalton No. 1 Setting, sec. 17-7s-1w. Drlg. sh. 2,589 ft.

Humbie O. & R. Co. No. 1 Floyd Williams, sec. 34-8s-1e. Core sd. 8,408 ft.

T. S. Markley No. 1 Daigle, sec. 19-7s-2e. Drk.

J. G. Mayo et al. No. 1 Bank of Commerce, sec. 19-7s-1e. 10¾-in. csg. 1,710 ft.; drlg. sh.&L. 8,916 ft.

Allen Parish

Humble O. & R. Co. No. 3 Bel, located in cratered hole, sec. 26-6s-7w. 10¾-in. csg. 165 ft.; T.D. 2,870 ft.; 7-in. csg. 2,766 ft.; shot well; failed to stop flwg S.W.; S.D.

Avoyelles Parish

Coastal Mineral Co. No. 1 Purdy Hess, sec. 25-2n-3e. Drlg. L. 3,812 ft.

Calcasieu Parish

Stanolind O. & G. Co. No. 1 Prairie Ld. & Canal Co., sec. 10-11s-9w. Drlg. sh. 1,603 ft.

Cameron Parish

Humble O. & R. Co. No. 1 Hanzen, sec. 5-12s-6w. 13⅜-in. csg. 3,046 ft.; drlg. sd. 8,871 ft.

Pure Oil Co. No. 2 State, sec. 14-13s-3w. Drlg. sh. 2,140 ft.

Southern Sulphur Co. No. 2 State, sec. 29-15s-10w. S.D. 2,611 ft.

Cameron Parish—Gulf of Mexico

Superior Oil Prod. Co. et al No. 1 State-Gulf of Mexico, 3,800 ft. W, 6,200 ft. S of SE cor. of irregular sec. 4-15s-8w Driving piling.

East Baton Rouge Parish

Cavalier Oil Co. No. 1 Elliott, sec. 3-9s-2e. 10¾-in. csg. 1,950 ft.; T.D. 6,115 ft.; D.S.S.

Louisiana Crusader Oil Co. No. 2 Louisiana State. 10¾-in. csg. 2,182 ft.; drlg. sh.&L. 7,696 ft.

East Feliciana—Wild

Koch et al No. 1 Andrews, sec. 69-2s-3e. 10-in. csg. 1,086 ft.; drlg. sh. 5,655 ft.

Evangeline Parish

Continental Oil Co. No. 1 Tate, sec. 44-3s-2e. Drlg. sd. 5,240 ft.

Iberia Parish

Jefferson Lake Oil Co. No. 414 State Lake Pigneur, Twp. 12s-5e. Top salt 990 ft.; set 10¾-in. csg. 5,095 ft.; top oil sd 6,915 ft.; 7-in. csg. 6,930 ft.; cd. salt 7060 ft.; T.D. 7,069 ft.; 5-in. csg. 6,686 ft.; W.O.C.

Jefferson Davis Parish

Louisiana Crusader Oil Corp. No. 1 Langley, sec. 36-7s-5w. T.D. 7,450 ft.; P.B. to sdtrk. at 6,868 ft.; T.D. 9,045 ft.; tstd. S.W. through perf. csg. 7,358-64 ft.; making squeeze job; tstd. S.W. 6,-540-52 ft.; abd.

Stanolind O. & G. Co. No. 2-B Calcasieu Natl. Bank, sec. 28-7s-3w. 13⅜-in. csg. 1,950 ft.; T.D. 9,100 ft.; 7-in. csg. 9,089 ft.

Jefferson Parish

Triangle Oil Co. No. 1 Conroe, sec. 125-12s-11e. Drlg. sh. 2,704 ft.

Lafourche Parish

Gulf Oil Corp. No. 3 State, sec. 36-23s-21e. 13⅜-in. csg. 1,455 ft.

Plaquemines Parish

Tide Water Oil Co. No. 3 Manhattan Fruit Co., sec. 26-21s-30e. Top sd. S.O. 7,187 ft.; T.D. 7,208 ft.; run csg. to test.

Rapides Parish

R. D. Webb No. 1 A. M. Brasher, sec. 22-4n-2w. S.D. 5,236 ft.

St. Bernard Parish

Gulf Oil Corp. No. 1 Lake Lery, sec. 28-14s-14e. T.D. 6,687 ft.; rmg.

Southern Sulphur Co. No. 2 State Lake Borgne, sec. 38-14s-15e. 13⅜-in. csg. 303 ft.; S.D. 3,440 ft.

St. Charles Parish

Amerada Pet. Corp. and La. Ld. & Expl. Co. No. 1 State, sec. 13-15s-20e. Cd. oil sd. 6,828-95 ft.; T.D. 7,124 ft.; 9⅝-in. csg. 7,118 ft.; top salt 8,632 ft.; rng. survey; will P.B. and test.

St. Landry Parish

Gulf Oil Corp. No. 1 Haas & Hirsch, sec. 12-6s-7e. Drlg. sh. 6,825 ft.

St. Martin Parish

Texas Co. No. 3 State, sec. 14-10s-9e. cmtd. on bttm.; T.D. 8,208 ft.; top salt 8,175 ft.; P.B. 7,600 ft.; top of cmt. plug 7,674 ft.; sdtrkd.; drld. into old hole at 7,800 ft.; P.B. 7,652 ft.; sidetrack 7,794 ft.; recovered mud on drill stem 7,826-50 ft.; cd. to 7,852 ft.; P.B. to sdtrk. at 6,720 ft.; went back into old hole; P.B.

St. Mary Parish

Texas Co. No. 1 Horse Shoe Bayou, sec. 40-17s-9e. T.D. 10,975 ft.; 7⅝-in. csg. 18-in. csg. 101 ft.; T.D. 12,261 ft.; blew out; caught fire; burned for 1 hr. and hole bridged; drlg. by jnk. at 11,253 ft.

Texas Co. No. 1 State-Bateman Lake, sec. 21-16s-12e. T.D. 10,541 ft.; D.S. stuck at 9,070 ft.

Vernon Parish

George Greer et al No. 1 Commercial Natl. Bank, sec. 9-1s-8w. Drlg. sh. 4,-118 ft.

TEXAS

Week Ending June 17

GULF COAST FIELDS

Danbury—Brazoria County

Rowan Drlg. Co. No. 1 Jamison, Henry Austin Sur. 10¾-in. csg. 1,496 ft.; W. O.C.

Hastings—Brazoria County

Humble O. & R. Co. No. 1 C. A. Borders, Perry & Austin Sur. R.U.

Humble O. & R. Co. No. 5-B Brown, Perry & Austin Sur. Drlg. sh. 4,910 ft.

Humble O. & R. Co. No. 11 Brown, W. H. Snyder Sur. Drlg. sh. 5,950 ft.

Humble O. & R. Co. No. 1 Haden. T.D. 6,125 ft.; 5½-in. csg. 6,124 ft.; I.P. 19 B.P.H.; ¼-in. ck.

Humble O. & R. Co. No. 1 J. Mason, C Lot 13, H.T.&B. Sur. No. 29. Drlg. sh. 3,-978 ft.

Humble O. & R. Co. No. 2 South Texas Grain Co., Perry & Austin Sur. Drlg. sh. 4,474 ft.

Navarro Oil Co. No. 1-C Beers, Perry & Austin Sur. Drlg. sh. 5,698 ft.

Stanolind O. & G. Co. No. 4 Autrey, H. T.&B. Sur. No. 37. R.U.

Stanolind O. & G. Co. No. 1 Barnett. Drlg. sh. 2,735 ft.

Stanolind O. & G. Co. No. 4 Blount. T.D. 6,080 ft.; 7-in. csg. 6,002 ft.

Stanolind O. & G. Co. No. 1 Condon, sec. 29, H.T.&B. Sur. R.U.

Stanolind O. & G. Co. No. 3 Curkett. T.D. 6,080 ft.; 7-in. csg. 5,775 ft.; I.P. 653 B.P.D.; ¼-in. ck.

Stanolind O. & G. Co. No. 6 Curkett, H. T.&B. Sur. No. 30. Drlg. sh. 1,770 ft.

Stanolind O. & G. Co. No. 1 DeWitt. Core sh. 6,020 ft.

Stanolind O. & G. Co. No. 10 Drake, H. T. &B. Sur. No. 36. T.D. 6,080 ft.; 7-in. csg. 5,939 ft.; I.P. 537 B.P.D.; ¼-in. ck.

Stanolind O. & G. Co. No. 4 Edwards. T.D. 6,080 ft.; 7-in. csg. 6,008 ft.; I.P. 640 B.P.D.; ¼-in. ck.; run csg.

Stanolind O. & G. Co. No. 4 Gendo. T.D. 6,080 ft.

Stanolind O. & G. Co. No. 6 Emil Grote, A.C.H.&B. Sur. T.D. 6,080 ft.; 7-in. csg. 5,968 ft.; tstg.

Stanolind O. & G. Co. No. 1-C Heram Moore, R. A. Magle Sur. T.D. 6,080 ft.; 7-in. csg. 5,973 ft.; flwd. 149 bbls. in 5½ hrs.

Stanolind O. & G. Co. No. 4 Hutchinson. T.D. 6,080 ft.; flwd. 412 bbls. in 17 hrs.; ¼-in. ck.

Stanolind O. & G. Co. No. 1 Kay, H.T.& B. Sur. No. 29. T.D. 6,160 ft.; rng. csg.

Stanolind O. & G. Co. No. 2 McKibben, H.T.&B. No. 29. 10¾-in. csg. 1,221 ft.; T.D. 6,157 ft.; 7-in. csg. 6,130 ft.; perf. csg. 5,950-58 ft.; tstg.

Stanolind O. & G. Co. No. 8 Paul, A.C. H.&B. Sur. 10¾-in. csg. 1,234 ft.; drlg. sh. 4,790 ft.

Stanolind O. & G. Co. No. 12 Paul, A.C.H. &B. Sur. Drlg. L. 4,483 ft.

Stanolind O. & G. Co. No. 12 Paul, A.C. H.&B. Sur. No. 2. Drlg. L. 4,482 ft.

Stanolind O. & G. Co. No. 2 Reichardt, H.T.&B. Sur. No. 29. Core sd. 5,669 ft.

Stanolind O. & G. Co. No. 7 Laura Shaw, H.T.&B. Sur. No. 36. T.D. 6,157 ft.; 7-in. csg. 6,125 ft.; perf. csg. 5,940-5,840 ft.; tstg.

Stanolind O. & G. Co. No. 1-B Stockwell, Stevens Sur. Drlg. sd. and sh. 1,475 ft.

Stanolind O. & G. Co. No. 1 Shyrock, H. T.&B. Sur. No. 29. Drlg. sh. 1,800 ft.

Stanolind O. & G. Co. No. 8 Turner, A.C. H.&B. Sur. T.D. 6,082 ft.; 7-in. csg. 6,-001 ft.

Lockridge—Brazoria County

Gulf Oil Corp. No. 1 Stevens, J. W. Hall Sur. Drlg. sd. 2,965 ft.

Gulf Oil Corp. No. 2 Baker, J. W. Hall Sur. Drlg. sh. 216 ft.

Gulf Oil Corp. No. 5-A Wilkes & Smith, J. W. Hall Sur. Drlg. sh.&L. 4,551 ft.

Gulf Oil Corp. No. 2-A Wood, J. W. Hall Sur. T.D. 6,377 ft.; 7-in. csg. 6,360 ft. Kirby Pet. Co. No. 1 Baker, J. W. Hall Sur. R.U.

Shell Pet. Corp. No. 1-B Ramsey, J. W. Hall Sur. R.U.

Manvel—Brazoria County

Texas Co. No. 17-A Belcher, H. N. Little Sur. Spd.

Texas Co. No. 25 B. W. T. Belcher, H. N. Little Sur. 10-in. csg. 1,176 ft.; T.D. 5,-150 ft.; 7-in. csg. 5,086 ft.; I.P. 103 B. P.D.; ⅛-in. ck.

Texas Co. No. 27 H.O.F.A., A.C.H.&B. Sur. Drlg. sh.&L. 2,092 ft.

Texas Co. No. 30 H.O.F. A.C.H&B. Sur. 7-in. csg. 5,660 ft.; T.D. 5,690 ft.; I.P. 518 B.P.D.; ¼-in. ck.

Old Ocean—Brazoria County

Harrison & Abercrombie No. 1 Larsen, C. Breen Sur. Drlg. sh. 5,410 ft.

Harrison and Abercrombie No. 4 Bernard River Ld. and Development Co., Charles Breen Sur. 13⅜-in. csg. 1,405 ft.; 9⅝- in. csg. 7,005 ft.; T.D. 10,408 ft. : 7-in. csg. 10,400 ft.; core brkn. sd. and sh. 10,716 ft.

Sandy Point—Brazoria County

Stanolind O. & G. Co. No. 1 Fite, D. Talley Sur. Drlg. sdy. L. 4,920 ft.

Stratton Ridge—Brazoria County

A. B. Head et al No. 1 Seeburn Est., J. E. Groce Sur. S.D. 2,204 ft.

West Columbia—Brazoria County

Texas Co. No. 16 Abrams, G. Tenille Sur. 10¾-in. csg. 1,187 ft.; W.O.C.

Texas Co.-Sterling O. & R. Co. No. 2 Phillips, G. Tenille Sur. 10¾-in. csg. 1,196 ft.

Calhoun—Heyser—Victoria County

George Echols No. 5 Bennett, J. Galban Sur. 10¾-in. csg. 636 ft.; T.D. 5,753 ft.; 7-in. csg. 5,753 ft.

Geo. Echols No. 1 Lander, Galban Sur. R.U.

Humble O. & R. Co. No. 1 P. H. Marshall, A. Sisneros Sur. Core sd. 5,531 ft.

Humble O. & R. Co. No. 9 E. H. Welder, J. M. Rios Sur. T.D. 5,450 ft.; 5½-in. csg. 5,444 ft.

Magnolia Pet. Co. No. 1 Lander, Galban Sur. R.U.

Normandie Oil Co. No. 1 J. G. Cook. A. Sisneros Sur. T.D. 5,491 ft.; 7-in. csg. 5,491 ft.

Portilla Drilling Co. No. 8-C P. H. Welder, A. Sisneros Sur. Drlg. sh. and L. 4,-585 ft.

Anahuac—Chambers County

Gulf Oil Corp. No. 2 Pommer, sec. 40, H &T.C. Sur. T.D. 7,125 ft.; I.P. 720 B. P.D.; ¼-in. ck.

Gulf Oil Corp. No. 1 Shephrett, sec. 46, H.&T.C. Sur. R.U.

Humble O. & R. Co. No. 12 Clark, H.&T. C. Sur., sec. 57. Drlg. sh. 1,046 ft.

Humble O. & R. Co. No. 9 Johnson, H.& T.C. Sur. T.D. 7,085 ft.; 5½-in. csg. 7,-056 ft.; I.P. 706 B.P.D.; ¼-in. ck.

Humble O. & R. Co. No. 10 Johnson, sec. 47, H.&T.C. Sur. Drlg. sh. 2,000 ft.

Humble O. & R. Co. No. 1-D Middleton, sec. 116, H.T.&B. Sur. Drlg. sh. 7,521 ft.; abd.

Humble O. & R. Co. No. 5 Shaver. T.D. 7,127 ft.; 5½-in. csg. 7,118 ft.; I.P. 121 B.P.D.; ¼-in. ck.

Humble O. & R. Co. No. 9 Zoppe, sec. 51, H.&T.C. Sur. T.D. 7,080 ft.; run csg.

Cotton Lake—Chambers County

Salt Dome Oil Corp. and Gulf Oil Corp. No. 1 A. B. Lawrence, B. Winfree Sur. 9⅝-in. csg. 1,169 ft.; T.D. 6,622 ft.; P.B. 6,515 ft.; rng. csg.

Salt Dome Oil Co. No. 2-B Lawrence, S. Barrow Sur. R.U.

Seabreeze—Chambers County

Sun Oil Co. No. 2 H. O. Acom, H.T.&B. Sur. No. 23. 18⅝-in. csg. 91 ft.; T.D. 8,795 ft.; D.S. stuck.

Sun Oil Co. No. 1 Jackson, Yarbo Sur. T.D. 8,570 ft.; 9⅝-in. csg. 8,535 ft.

Turtle Bay—Chambers County

Stanolind O. & G. Co. No. 1 Mayes, E. Wallis Sur. Core sh. 6,648 ft.

Stanolind O. & G. Co. No. 3 Middleton, Carroll Sur. R.U.

Sun Oil Co. No. 5 Chambers, M. A. Carroll Sur. Drlg. sh. 1,347 ft.

Big Creek—Fort Bend County

Barnett Pet. Corp. No. 2 J. H. P. Davis B. Nickson Sur. T.D. 3,080 ft.; P.B. and sdtrkd.; T.D. 3,729 ft.; perf. csg. 3,697-3,705 ft.; perf. csg. 3,697-3,705 ft.; swbg.

Boling—Fort Bend County

Mackhank Oil Co. No. 6-C E. C. Farmer, A. Scott Sur. Drlg. sh. 3,306 ft.

Orchard—Fort Bend County

Gulf Oil Corp. No. 53 Moore. J. Frazier Sur. Drlg. sh. and shells 6,658 ft.

Gulf Oil Corp. No. 54 Moore, J. Frazier Sur. R.U.

Sugarland—Fort Bend County

Strake Pet. Co. No. 1 Deathridge, E. Alcorn Sur. Drlg. anhy. 4,272 ft.

Thompson—Fort Bend County

Texas Co. No. 3 Sherman, S. Kennedy Sur. T.D. 5,380 ft.; 7-in. csg. 5,331 ft.

Dickinson—Galveston County

Atlantic O. & R. Co. No. 2 Lippman, W. G. Banks Sur. Drlg. sd. 6,195 ft.

Bennet-Kenyon Oil Co. No. 1 Schroeder, W. G. Banks Sur. Drlg. sh. 1,733 ft.

Coast Pet. Co. No. 7 Stewart, W. K. Wilson Sur. Drlg. sh. 6,997 ft.

Humble O. & R. Co. No. 20-A Stewart, W. K. Wilson Sur. Drlg. sd. 8,910 ft.

Humble O. & R. Co. No. 1-C Stewart, W. K. Wilson Sur. Drlg. sh. and sd. 7,102 ft.

Stanolind O. & G. Co. No. 7 State. 13⅜- in. csg. 2,013 ft.; 9⅝-in. csg. 6,090 ft.; T.D. 9,076 ft.; 7-in. csg. 9,061 ft.

Turman Oil Co. No. 2 Stewart, W. K. Wilson Sur. T.D. 8,792 ft.; 7-in. csg. 8,790 ft.; perf. csg. 8,764-72 ft.; flwg. 50 bbls. of fluid per hr.; ¼-in. ck.

High Island—Galveston County

Stanolind O. & G. Co. No. 62-A Cade. M Fitzsimmons Sur. T.D. 5,800 ft.; P.B. and sdtrkd.; drlg. sd. and sh. 3,883 ft.

Stanolind O. & G. Co. No. 1 C. E. Smith, M. Dunman Sur. Drlg. sh.&L. 2,883 ft.

Stanolind O. & G. Co. No. 15-A Smith. M Dunman Sur. T.D. 6,425 ft.; make squeeze job.

Silsbee—Hardin County

Humble O. & R. Co. No. 2 M. L. Kirby, Ellery Sur. Drlg. sh. and shells 3,715 ft.

Republic Prod. Co.-Houston Oil Co. No. 17 Brooks, G. W. Brooks Sur. 10¾-in. csg. 1,71[illegible] ft.; T.D. 6,932 ft.; S.W. sd.; P.B. 5,400 ft.; sdtrkd. 5,577 ft.; drlg. sh. 5,-826 ft.

Republic Prod. Co. No. 18 G. W. Brooks, Brooks Sur. 10¾ in. csg. 1,548 ft.; drlg. sh. 6,040 ft.

Republic Prod. Co.-Houston Oil Co. No. 19 Brooks, G. W. Brooks Sur. R.U.

Bammel—Harris County

Geo. Lawrence No. 2 Zapp, J. Farwell Sur. R.U.

Clinton—Harris County

Stanolind O. & G. Co. No. 1 Candelari, O.W.D.D.; sdtrkd.; drlg. sh. 7,910 ft.

Fairbanks—Harris County

Amerada-Stanolind O. & G. Co. No. 1 Wright, F. Fry Sur. Drlg. sh. 1,400 ft.

Friendswood—Harris County

Glenn McCarthy No. 1 Whitcomb, T. Choate Sur. R.U.

Goose Creek—Harris County

Bob Foster No. 1 Esenhour, Wm. Scott Sur. T.D. 2,741 ft.; no report.

Pierce Junction—Harris County

Gulf Oil Corp. No. 13-C Cain, J. Hamilton. Drlg. sdy. sh. 4,192 ft.

South Houston—Harris County

Stanolind O. & G. Co. No. 2, Drlg. Dist. No. 7. R.U.

Stanolind O. & G. Co. No. 2, Dist. 20. 9⅝-in. csg. 1,449 ft.; drlg. sh. 3,800 ft.

Stanolind O. & G. Co. No. 7 First Natl. Bank. T.D. 4,052 ft.; S.W. sd.; abd.

Stanolind O. & G. Co. No. 8 First Natl. Bank, Callahan & Vance Sur. Drlg. sh. and shell 1,160 ft.

Tomball—Harris County

Humble O. & R. Co. No. 1 Burlington Rock Island Unit 3, Wm. Hurd Sur. Drlg. sh. 3,660 ft.

Humble O. & R. Co. No. 2 Burlington Rock Island. T.D. 5,572 ft.; I.P. 458 B. P.D.; ¼-in. ck.

Humble O. & R. Co. No. 2 Heeck, Wm. Heird Sur. T.D. 5,582 ft.; cut and pull screen.

Humble O. & R. Co. No. 7 Holderrieth, J. Pruitt Sur. Drlg. sh. 2,150 ft.

Humble O. & R. Co. et al No. 16 Reid, Goodrick Sur. R.U.

Humble O. & R. Co. No. 2-B Jurgens. T.D. 5,580 ft.; install flow valves.

Southwest Inv. Co. No. 3 Hillegiest, J. House Sur. T.D. 5,180 ft.; S.D.

Texas Co. No. 4 Hillegiest, J. House Sur. T.D. 5,603 ft.; S.W. sd.; P.B.; sdtrkd.; drlg. 3,160 ft.

Amelia—Jefferson County

Humble O. & R. Co. No. 1 Atlsenson, C. Williams Sur. Drlg. sh. 5,450 ft.

Humble O. & R. Co. No. 1 Burford, C. Williams Sur. T.D. 6,778 ft.; D.S. stuck.

Humble O. & R. Co. No. 1 Charpect, C. Williams Sur. Drlg. sh. 5,771 ft.

Humble O. & R. Co. No. 4 Crook, C. Williams Sur. T.D. 6,779 ft.; I.P. 28 B.P. H.; ¼-in. ck.

Humble O. & R. Co. No. 1 McCormick. T.D. 6,778 ft.; 5½-in. csg. 6,763 ft.; flwd. S.W.; make squeeqe job.

Humble O. & R. Co. No. 4 Peveto, C. Williams Sur. Drlg. sh. 4,102 ft.

Humble O. & R. Co. No. 7 Peveto, C. Williams Sur. T.D. 6,778 ft.; 5½-in. csg. 6,775 ft.; ratio high; I.P. 28 B.P.H.; ¼-in. ck.

Humble O. & R. Co. No. 1-D Pinchback, C. Williams Sur. T.D. 6,774 ft.; run 5½-in. csg.

Humble O. & R. Co. No. 5 Tyrell-Combest, C. Williams Sur. T.D. 6,787 ft.; 5½-in. csg. 6,782 ft.; I.P. 25 B.P.H.; ¼-in. ck.

Humble O. & R. Co. No. 7 Tyrell-Combest, A. Savery Sur. R.U.

Humble O. & R. Co. No. 11 Tyrell Combest, C. Williams Sur. Abd. 6,872 ft.

Humbie O. & R. Co. No. 14 Tyrell-Combest, A. Savery Sur. Drlg. sh. 1,035 ft.

Glenn H. McCarthy No. 3-A Longe, H. Williams Sur. T.D. 5,401 ft.; well sanded up; pull screen.

Stanolind O. & G. Co. No. 3 W. P. McCormick, H. Williams Sur. T.D. 5,400 ft.; 7-in. csg. 5,369 ft.; I.P. 569 B.P.D.; ¼-in. ck.

Stanolind O. & G. Co. No. 4 McCormick, H. Williams Sur. Drlg. sh. and shell 4,969 ft.

Stanolind O. & G. Co. No. 5 McCormick, H. Williams Sur. 10¾-in. csg. 1,144 ft.

stanolind O. & G. Co. No. 4 Sargi, H. Williams Sur. T.D. 6,106 ft.; P.B. 6,-063 ft.; perf. csg. 5,840-60 ft.

Sun Oil Co. No. 1 Gailey, Houston Sur. 16-in. csg. 107 ft.; T.D. 5,428 ft.; 7-in. csg. on bttm.; tstd. S.W.; make squeeze job.

Big Hill—Jefferson County

Stanolind O. & G. Co. No. 2-B Pipkin, Wm. McFadden Sur. Drlg. sh. 5,431 ft.

Stanolind O. & G. Co. No. 2 May Fitzhugh, Wm. McFadden Sur. Drlg. sh. and L. 2,648 ft.

Stanolind O. & G. Co. No. 4-A Pipkin. T.&N.O. Sur. T.D. 4,081 ft.; rmg. to set csg.

Fannett—Jefferson County

Gulf Oil Corp. No. 8 Junker, Wm. Smith Sur. 10¾-in. csg. 1,948 ft.; drlg. sh. 5,998 ft.

LaBelle—Jefferson County

Sun Oil Co. No. 1 John Ward, 933 ft. S of No. 2 Broussard, Wm. Burton Sur. 18⅝-in. csg. 109 ft.; 9⅝-in. csg. 8,538 ft.; T.D. 9,951 ft.; 7-in. csg. 9,951 ft.; surveying hole.

Nome—Jefferson County

Shell Pet. Corp No. 3 "B" Unit, M. E. Peveto Sur. 5-in. csg. 6,010 ft.; T.D. 6,-

117 ft. (cor.); I.P. 20 bbls. P.L.O. per day; ¼-in. ck.
Sun Oil Co. No. 3 Burrows, J. Blair Sur Drlg. sd. and sh. 3,973 ft.
Sun Oil Co. No. 4 Burrows, J. Blair Sur. Drlg. sd. 108 ft.
Sun Oil Co. No. 1 Tindell, A. Horton Sur. T.D. 6,738 ft.; abd.
Sun Oil Co. No. 9 Paggi, J. W. Kirby Sur. T.D. 6,045 ft.; 5¾-in. csg. 6,008 ft.; I.P. 302 B.P.D.; ¼-in. ck.

North Cheek—Jefferson County

Magnolia Pet. Co. No. 2 Phelan, S. Stevens Sur. R.U.

Cleveland—Liberty County

Gulf Oil Corp. No. 19-C Kirby, J. Pleasants Sur. R.U.

Hankamer—Liberty County

Gulf Oil Co. No. 25 E. W. Boyt, Amos Allen Sur. Core sd. rk. 4,814 ft.

Hardin—Liberty County

Jack Frazier No. 1 Roberts, H. B. Johnston Sur. Drlg. sh. 6,500 ft.
L. W. Wickes No. 1 Lynott Buffman, J. Robinson Sur. R.U.
Woodley Pet. Co. No. 1 McMurtay, H. B. Johnston Sur. 10-in. csg. 1,164 ft.; drlg. sh. 5,379 ft.

Hull—Liberty County

Bishop Oil Co. No. 1 C. R. Wilson, J. Devore Sur. Oil sd. 780-88 ft.; T.D. 4,127 ft.; 7-in. csg. 2,204 ft.; perf. csg. 2,286-90 ft.; P.B. and strkd.; S.D. 2,276 ft.
Gulf Oil Corp. No. 24 Baldwin, J. Devore Sur. Drlg. sd. 5,034 ft.
Hamill & Smith No. 3 Barrow, J. Devore Sur. T.D. 4,630 ft.; P.B. 3,900 ft. to sdtrk.
Houston Prod. Co. No. 2 Hannah, J. Devore Sur. Drlg. sh.&L. 4,418 ft.
Texas Co. No. 7 Hannah fee, J. Devore Sur. T.D. 5,427 ft.; I.P. 30 B.P.H.; ¼-in. ck.

Bay City—Matagorda County

Hamman Expl. Co. No. 2 J. C. Crooker, E. Hall Sur. Drlg. sh. 3,405 ft.

Buckeye—Matagorda County

United North & South Development Co. No. 1 G.B.M. Cotton League, 13⅜-in. csg. 1,530 ft.; drlg. sh.&L. 5,565 ft.

Hawkinsville—Matagorda County

Sun Oil Co. No. 2 Craig, T. Williams Sur. Top salt 790 ft.; base salt 2,099 ft.; 18⅝-in. csg. 2,174 ft.; 13⅜-in. csg. 3,700 ft.; 9⅝-in. csg. 5,689 ft.; T.D. 5,969 ft.; hole cleaned; P. B. and sdtrkd.; making up 3-in. drill pipe; 7-in. csg. 6,044 ft.; drlg. sh. 6,362 ft.

Markham—Matagorda County

Hamil & Hamil No. 3 Hudson, H. Parker Sur. T.D. 3,750 ft.; P.B. 3,700 ft.; sdtrkd.; drlg. sh. 1,850 ft.
Turman Oil Co. et al No. 3 Hudson, H. Parker Sur. R.U.

Palacios—Matagorda County

Glenn McCarthy No. 2 Foley, L. Goodwin Sur. 10¾-in. csg. 2,520 ft.
Glenn McCarthy No. 1 W. M. Rohls, sec. 10, L. Goodwin Sur. Drlg. sh.&L. 3,795 ft.
Glenn McCarthy No. 1 Palacios State Bank, L. Goodwin Sur. 10¾-in. csg. 2,525 ft.
Sun Oil Co. No. 1 Bay Shore Farms, Lewis Goodwin Sur. 13⅜-in. csg. 1,910 ft.; core sd. 8,053 ft.

Van Vleck—Matagorda County

Skelly Oil Co. No. 2 Johnson, M. Cummins Sur. T.D. 8,465 ft.; 7-in. csg. 8,464 ft.; perf. csg. 8,210-14 ft.; run tbg.

Orange—Orange County

Texas Co. No. 12 Kuhn, T. J. Nolgrass Sur. R.U.

Segno—Polk County

J. K. Dorrance No. 2 Wing, I.&G.N. Sur. No. 15. 7-in. csg. 5,185 ft.; T.D. 5,301 ft.; S.W. sd.; P.B. 5,204 ft.; swbd. some oil; reworking.
Gulf Oil Corp. No. 1-B Quinn, A. Morale Sur. R.U.
Gulf Oil Corp. No. 1 Ragan, I.&G.N. Sur. No. 15. T.D. 6,013 ft.; P.B. 5,460 ft. to straighten hole; D.S. stuck; cutting and pulling.
Gulf Oil Corp. No. 7 Wing, I.&G.N. Sur. No. 15. Drlg. 100 ft.
Humble O. & R. Co. No. 5-B Kirby Lbr. Co., M. Victor Sur. Abd.; T.D. 5,342 ft.
Humble O. & R. Co. No. 6-B Kirby Lbr. Co., M. Victor Sur. R.U.
Laquinta No. 3 Wing, I.&G.N. Sur. No. 15. T.D. 5,274 ft.; 7-in. csg. 5,274 ft.

Quintana-O'Connor-Greta—Refugio County

United Gas Co. No. 54 Lambert, J. M. Swisher Sur. T.D. 5,890 ft.; tstg.
United Gas Corp. No. 55 Lambert, Swisher Sur. Drlg. 5,500 ft.
United Gas Corp. No. 12 J. J. O'Brien, T.D. 9,225 ft.; perf. liner 8,103-8,128 ft.; tstg. S.W.; P.B. 7,800 ft.; tstd. S.W.; P.B.

Spurger—Tyler County

Republic-Houston Oil Co. No. 4 Hurd, N. Hurd Sur. Drlg. sh. 3,830 ft.

Tellener—Victoria County

Magnolia Pet. Co. No. 1 Beck, T.&N.O. Sur. Drlg. S.W. sd. 4,141 ft.

Keeran—Victoria County

Union Oil Co. No. 5 Keeran, M. DeLeon Sur. T.D. 6,027 ft.; 7-in. csg. 6,027 ft.; tstd. oil and S.W. through perf. csg. 5,761-5,972 ft.; made squeeze job; W. O.C.

McFaddan—Victoria County

Transwestern Oil Co. No. 4, McFaddin Sur. R.U.

Placedo—Victoria County

Barnsdall-American Liberty Oil Co. No 20 Pickering, S.A.&M.G. Sur. Drlg. sdy. sh. 4,735 ft.
Barnsdall Oil Co.-American Liberty Oil Co. No. 11 Pickering, S.A.&M.G. Sur. T.D. 4,775 ft.; 7-in. csg. 4,760 ft.
T. N. Development Co. No. 1 Henderson, S.A.&M.G. Sur. Drlg. sh. 896 ft.
Lion O. & R. Co. No. 3 S. W. Wright, S.A.&M.G. Sur. T.D. 4,775 ft.; R.U. to pmp.
Magnolia Pet. Co. No. 10 Sklar, S.A.&M. G. Sur. T.D. 4,770 ft.; 7-in. csg. 4,760 ft.
H. B. Ownby No. 5 Traylor, S.A.&M.G. Sur. Drlg. sh.&L. 3,550 ft.
H. B. Ownby No. 6 Traylor, S.A.&M.G. Sur. T.D. 4,771 ft.; 5½-in. csg. 4,754 ft.; comp.; no gauge.
Shell Pet. Corp. No. 5 Houston Natl. Bank, 4,779-83 ft.; tstd. oil and S.W.; abd.

Clay Creek—Washington County

Oak Oil Corp. No. 1 G. Cockrell, J. F. Perry Square Sur. T.D. 1,365 ft.; pmpg. from 4 to 5 bbls. fluid per hr.
Sun Oil Co. No. 6 Droger, J. Perry Sur. T.D. 5,350 ft.; P.B. 3,100 ft.; prep. to sdtrk.

Five Corners—Wharton County

Texas Co. No. 7-B Pierce Est., J. Caldwell Sur. T.D. 5,555 ft.; 7-in. csg. 5,554 ft.; flwd. oil and S.W.; squeezed off bttm. with cmt.; flwd. 75% S.W.; killed; reset screen; swabbed S.W.; pulling screen; set retainer 5,524 ft.; flwg. 15 bbls. of fluid per hr.; ¼-in. ck.

Louise—Wharton County

Pure Oil Co. No. 4 Houston, T. W. Hurd Sur. T.D. 5,150 ft.; 7-in. csg. 5,110 ft.; I.P. 504 B.P.D.; ¼-in. ck.

Magnet—Wharton County

Atlantic Ref. Co. No. 2-B H. C. Cockburn, Smith & McKenzie Sur. Core sd., O.S. 5,377 ft.
Humble O. & R. Co. No. 1 Cockburn, S. Castleman Sur. 10¾-in. csg.; 1,236 ft.; T.D. 5,550 ft.; 7-in. csg. 5,540 ft.; swbg.
Texas Crusader Oil Co. No. 1-B Sweet, Smith & McKenzie Sur. T.D. 5,555 ft.

Pickett Ridge—Wharton County

Texas Co. No. 33-A Pierce Est., G.B.&N Sur. No. 4; 9,000-ft. test. Drlg. sh. 8,282 ft.

Withers—Wharton County

Texas Co. No. 31-C Pierce, Wm. Pettus Sur. T.D. 5,557 ft.; 7-in. csg. 5,552 ft.; swbg.
Texas Co. No. 35-C Pierce, Wm. Pettus Sur. Drlg. sh. 3,476 ft.
Texas Co. No. 34-C Pierce Estate, Wm. Pettus Sur. T.D. 5,560 ft.; 7-in. 5,550 ft.
Texas Co. No. 36-C Pierce Est., Wm. Pettus Sur. R.U.

GULF COAST WILDCATS

Brazoria County

Humble O. & R. Co. No. 1 W. B. Munson, S. Carter Sur. R.U.
Ohio Oil Co. No. 1 Kempner Adams, H. T.&B. Sur. No. 33. R.U.
Pure Oil Co. No. 1 P. M. Slade, S. F. Austin Lge. T.D. 8,353 ft.; rmg.
Texas Gulf Prod. Co. No. 1 W. D. Adams, H.T.&B. Sur. No. 40. Drk.
Texas Co. No. 2 Robbins, James W. Brougham Sur. 13⅜-in. csg. 5,498 ft.; 9⅝-in. csg. 6,060 ft.; T.D. 7,465 ft.; reaming.

Chambers County

David B. MacDaniels No. 1 S. E. Barrow, Luke Bryan Sur. R.U.

Colorado County

Coyle & Concord No. 3-B Powell, I.&G.N. Sur. No. 45. Drlg. sh. 5,475 ft.

Fort Bend County

Research, Inc., No. 1 Moore, S. Kennedy Sur. Core 5,500 ft.

Harris County

Humble O. & R. Co. No. 1 Settegast, Perry and Austin Sur. T.D. 6,040 ft.; 7-in. csg. 5,802 ft.; I.P. 650 B.P.D.; ¾-in. ck.
Superior Oil Co. No. 1 Butler, Eehrhardt Sur. Drlg. sh. 9,665 ft.
West Prod. Co. No. 1 Ammon Underwood, Nicklos Clopper Sur. R.U.

Jackson County

George W. Greet et al No. 1 J. R. Davis, David Hoffman Sur. T.D. 6,310 ft.; rmg.

Jefferson County

H. E. Hebert and Smith No. 1 Broussard, H.T.&B. Sur., sec. 10. Abd. 7,360 ft.

Matagorda County

Continental Oil Co. No. 2 Hawkins Est., D. McCarty Sur. 20-in. csg. 120 ft.; 11¾-in. csg. 5,409 ft.; T.D. 6,612 ft.; heaving sh.; P.B.
Royal O. & G. Corp. No. 1 T. J. Ewing, Burnett and Sojourner Sur. Cg. sh. 8,508 ft.

Newton County

Houston Oil Co.-Republic Prod. Co. No. 1 Sabine Tram Co., H.&T.C. Sur., sec. 35. Drlg. sh. and sd. 800 ft.

Polk County

H. E. Williams & Thompson No. 1 Carter, H. Augustine Sur. R.U.

San Jacinto County

Cockburn Oil Corp. et al No. 1 Whitten, Wm. West Sur. T.D. 5,610 ft.; abd.

Tyler County

McArthur & Nixon No. 1 Kountze, J. A. Hankins Sur. T.D. 3,665 ft.; washing to bttm.

Washington County

K. D. Harrison and C. E. Starr No. 1 Charles and Wm. Ellerman, Wm. Bridges Lge. 13-in. csg. 290 ft.

S. W. TEXAS WILDCATS

Aransas County

Barnsdall Oil Co. No. 2 Kate Edwards, 330 ft. S line, Lot 85, 660 ft. SW No. 1, Wm. Lewis Sur. Drlg. 9,215 ft.
Danray Oil Co. No. 1 Davis, Tr. 5, Wm. Boyd Sur. Drlg. 8,855 ft.

Atascosa County

L. G. Priest No. 1 Bridwell, Tr. 45, Gorman Sur. S.D. 2,145 ft.

Bastrop County

R. Pulliam No. 1 Yoast, Garcia Sur. R.U.
McNeill Pet. Co. No. 1 Litton, 71-ac. tr., Cedar Cr. Community. M.I.M.
Marts & Beavens No. 1 Kennard, G. Glasscock Sur. R.U.
Texas North Oil Co. No. 1 Barton, J. Rogers Sur. R.U.

Bee County

J. J. Cosner No. 1 Franklin Life, Morena Gr. Spdg.

Bexar County

L. & K. Oil Co. No. 1 Russell, Rodriguez Sur. Set csg. 21 ft.; W.O.C.

Blanco County

E. L. Nixon No. 1 Hornberger, 1,200 ft. S line, 300 ft. E line, Sur. 723. S.D. 1,-216 ft.
H. T. Roe No. 4 Morrisey, Webb Sur. 91. Spd. in.

Brooks County

Standard of Tex. No. 1 Mestina, Mestina Lse. No. 3. T.D. 6,786 ft.; D.S.T. 5,147-60 ft.; rec. 98 ft. gas-cut mud; W.P. 40 lbs.; P.B.
Standard Oil Co. of Texas No. 8 Mestina, Tr. 11, Salinas Sur. M.I.M.

Caldwell County

Baker et al No. 1 Florine, R. Davidson Sur. Set surf. csg.; W.O.C.
F. & W. Drlg. Co. No. 1 Rodenberg, J. Berry Sur. T.D. 2,029 ft.; rng. tbg.
E. H. Grazer No. 1 Field, Dikes Sur. T.D. 1,965 ft.; swbg. oil.
J. O. Mack, Jr., No. 1 Withers, Wm. House Sur. S.D. 1,475 ft.
G. C. Richardson No. 1 Trammel, E. Berry Sur. Drlg. 2,059 ft.
Lee Ross No. 1 Daugherty, John Tyler Sur. Drlg. 556 ft.
Sherman Nelson No. 1 Etheridge, T. Hunter Sur. T.D. 2,180 ft.; R.U.; W.O.O.
Siznod Oil Co. No. 1 Reed, M. G. Dykes Sur. M.I.M.

Cameron County

Ruez-Morton No. 1 United Land Irr. Co., Lot 7, Blk. 402, El Jardin Subd. S.D. 6,040 ft.
Stapper Petroleum Corp. No. 1 Port Isabel Irrigation Co., Blk. 17, P.I.I.Co. Subd. Santo Gr. D.&A. 7,786 ft.

Comal County

J. R. Yates No. 1 Heidrich, Heidrich ranch. R.U.

Dimmitt County

Wilcox O. & G. Co. No. 1 Light ranch, 330 ft. N and E line, sec. 67. Drlg. bl. sh. 8,010 ft.

Duval County

Gunsberg O. & G. Co. No. 1 Henderson, Sur. 149. Drk.
Hougen Tr. No. 1 Patton, Sur. 148. Spd.
King Drlg. Co. No. 1 Parr, San Andres Gr. D.&A. 6,530 ft.
Liberty Oil Co. No. 1 State, Sur. 216. T.D. 1,555 ft.; S.D.
Parr Oil Co. No. 1 Meek, 100-ac. tr., Sur. 212. Sd. 2,750-71 ft.; odor oil; cg. 2,834 ft.
Standard Oil Co. of Texas No. 3 Gray Est., 330 ft. N and E line, sec. 170, M. E. Gusset Sur. Loc.
Woodley Pet. Co. No. 1 Parr, 100-ac. tr., San Andres Gr. Drk.

Frio County

Amerada Pet. Corp. No. 1 Harrigan, Flores Sur. 306. Lost hole; T.D. 6,410 ft.; P.B. 5,720 ft.; tstg.
Pagenkoff & Jamieson No. 2 Blackaller, Gourley Sur. 765. Drlg. 2,786 ft.

Goliad County

Goliad Oil Co. No. 2 Cole, lot 33, Goliad Town. Tr. Sur. Set protective csg. 4,-500 ft.; drlg. 5,395 ft.

Guadalupe County

Fair et al No. 1 Hemple, Williams Sur. T.D. 2,076 ft.; S.D.; oil and wtr. in hole.
Lincoln Pet. Co. No. 1 Baenzinger, Mansola Sur. Set csg. 1,990 ft.; drlg. plugs.
Robertson et al No. 1 Blumberg, M. Baker Sur. Drlg. 1,026 ft.
W. S. Townsend No. 1 Terrill, 111-ac. tr. D.&A. 2,061 ft.

Jim Wells County

Magnolia Pet. Co. No. 7 Seeligson, 10,433 ac. tr., Los Jabonocillos Gr. Sd. 6,118-42 ft.; dist. odor; D.S.T. 6,116-42 ft.; rec. 40 ft. mud, dist. and sd.; W.P. 960 lbs.; ran elec. survey and set protective csg. 6,160 ft.

Kendall County

Landon & Peffley No. 1 Seidensticker, Sur. 257, Chorcon Gr. R.U.

LaSalle County

W. H. Vernor No. 1 Las Abras ranch, sec. 726. R.U. to D.D.; T.D. 800 ft.

Lee County

Elaussa Oil Co. No. 1 Saunders, Von Reeder Sur. Set csg. 3,672 ft.; T.D. 3,675 ft.; S.D.
Jas. E. Pederson No. 1 Turner, David Hudson Sur. W.O.; drlg. 6,131 ft.

Live Oak County

Chas. Hanna et al No. 1 Wedding, 200-ac. tr., Haughy Sur. R.U.
Henshaw Bros. & Nelson No. 1 Ulesch, Triplett Sur. No. 150. Drlg. 1,226 ft.
Loma Oil Co. No. 1 Schwartz, McKilliey Sur., Abst. 19. D.&A. 1,675 ft.

McMullen County

Edwards, Zock et al No. 1 Two Rivers Ranch Co., 150 ft. S and W lines, SE¼, sec. 60. Sd. 1,100-02 ft.; S.O.&G.; drlg. 1,219 ft.
Harrison & Danvers No. 3 Claunch, M. Hely Sur. Drlg. sh. 211 ft.
Harvey & Henderson No. 1 Nueces L. & L. Co., Sur. 105. Drlg. 1,956 ft.
Howell Oil Corp. No. 1 Martin, Sur. 213. T.D. 3,507 ft.; S.D.
W. L. Hinds No. 1 Rhodes, NE¼, NW¼ sec. 54. S.D. 945 ft.; rep.
Rowan & Nichols No. 1 Rhodes, NE¼ sec. 18, Seale & Morris Sur. Drlg. 1,-811 ft.
Schimmel et al No. 1 Hagist, Sur. 467. Prep. spud.
C. C. Shumway No. 10 Shiner ranch, sec. 51, Shumway Subd. Sd. 1,575-84 ft.; set csg.; W.O.C.
Smith & Story No. 1 McKean, sec. 200. Sd. 1,224-28 ft.; odor oil; rmg. to test.

Milam County

Kingdor Expl. Co. No. 1 White, B. Wickson Sur. Drlg. L. 3,967 ft.

Nueces County

Gillock et al No. 2 Poenisch, Lot 11, sec. 32. Drlg. 1,107 ft.
W. L. Hinds Drlg. & Expl. Co. No. 1 River Bros. 80-ac. tr., sec. 301. T.D. 6,015 ft.; M.I. rig.
Seaboard Oil Corp. No. 1-C Chapman, sec. 111, Laurels Farm Lots. Cg. 5,795 ft.
Seaboard Oil Corp. No. 1 Jurica, Blk. 32, Robertson Farm Trs. R.U.

San Patricio County

Danray Oil Co. No. 1 Davis, Tr. 5, Wm. Boyd Sur. 5,256 ft.
Eleanor Oil Co. No. 1 Green Est., 167.4-ac. tr., Williamson Sur.; (W.O.). Old T. D. 6,800 ft.; set 5-in. csg. 7,000 ft.; perf. 6,566-74 ft.; swbg.
Humble O. & R. Co. No. 1 McCampbell 610.62-ac. tr., Martinez Sur. Drlg. sd.; no shows 7,076 ft.
Plymouth Oil Co. No. 1-A Odem, subd. 2, A. Herron Sur. T.D. 5,080 ft.; P.B. to sdtrk.
Wellington Oil Co. No. 1-B Welder, SE¼ sec. 6, Cubage & Miller Subd., Garza Sur. Cg. 5,387 ft.

Starr County

Calderoni-James-Follette No. 1 Rodriguez, Blk. 6, Sh. 56, Porc. 80. Set sur. csg. 100 ft.; S.D.
Dancey Oil Co. No. 2 Ramos, Sur. 149. Drlg. 548 ft.
Donroy Oil Co. No. 1 Ramon, 2,400 ft. SE line, 150 ft. SW line, sec. 150. Cg. 1,281 ft.
Gilcrease Oil Co. No. 1 Castillo, Sh. 7-D, Porc. 77. Drlg. 1,056 ft.
Henry Mode et al No. 1 Kelsey-Bass, Blk. 7, Porcs. 86 and 87. D.&A. 3,504 ft.
Transwestern Oil Co. and Davenport No. 3 Slick, sec. 527. Spd.

Webb County

Eugene Garner No. 2 Saldivar, Blk. 12, Sur. 567. Oil sd. 997-1,000 ft.; perf. 990-98 ft.; fsg.
Lu Tex Oil Co. No. 2-A Lone Star Constr. Co., Porc. 12. T.D. 3,451 ft.; fsg.
J. W. Magee No. 1 Garcia, Blk. 21, James Subd. R.U.; S.D.
Paul Meaders No. 1 Garcia, Sur. 338. Loc.
J. R. B. Moore No. 1 Slator, Blk. 7½, Slator subd., Borrego Gr. Spdg.

Willacy County

Ruez-Morton, Inc., No. 1 F. Armendias, C Lot 9, Sh. 4, San Juan de Carricitos Gr. Drlg. 537 ft.
Ruez-Morton, Inc., No. 1 Johnson-Stillman, Lot 14, Blk. 25, Sh. 44, San Juan de Carricitos Gr. S.D. 643 ft.

Wilson County

Eckert & Sons No. 1 Rossi, Salina Sur. Drlg. 905 ft.
Maryland Oil Co. No. 1 Rice, 93-ac. tr., Mays Sur. A-204. O.W.W.O.; old T.D. 5,-611 ft.; R.U. to rework.
R. C. Stanley No. 2 Heirholzer, R. Salina Sur. Oil sd. 1,025-30 ft.; rng. tbg. to comp.

Zapata County

Allison & Abrams No. 1 Vela, Sur. 249. Drlg. 1,047 ft.
O. W. Killam No. 1 Bruni, Blk. 83, Ranchito Pasture, Borrego Gr. Sd. 1,490-1,510 ft.; S.O.; drlg. ahead.
J. O. Sheffield No. 1 Buck, Blk. 15, Sur. 273. S.D. 2,238 ft.

S. W. TEXAS PROVEN

McCampbell—Aransas-San Patricio Counties

Atlantic Ref. Co. No. 1-A Guarantee, Blk. 13, Lot 16. Cg. 6,774 ft.
Atlantic Ref. Co. No. 1-B Guarantee, Blk. 13. M.I.M.

Atlantic Ref. Co. No. 3-C McCampbell, Blk. 40. O.W.W.O.; old T.D. 6,551½ ft.; cg. 7,114 ft.
Atlantic Ref. Co. No. 1-D McCampbell, Lot 16, Blk. 39. Cg. 6,530 ft.
Atlantic Ref. Co. No. 1-E McCampbell, Lots 1 and 2, Blk. 38. Drlg. 5,527 ft.
Atlantic Ref. Co. No. 1 McCullough, Lot 11, Blk. 14. Comp.; no gauge; sd. 7,-117½-22½ ft.
Atlantic Ref. Co. No. 1 Scrivener, Lots 11 and 12, Blk. 11. Cg. 7,087 ft.
Buckingham Oil Co. No. 11-A McCampbell, Lot 7, Blk. 41. Sds. 7,083-89 ft. and 7,123-27 ft.; set 7-in. csg. 7,133 ft.; perf.
Buckingham Oil Co. No. 12-A, McCampbell, Lot 7, Blk. 42. Sd. 7,095-7,111 ft.; odor oil; sd. 7,120-22 ft.; S.G.; set 7-in. csg. 7,135 ft.; W.O.C.
Buckingham Oil Co. No 4-B McCampbell, Lot 16, Blk. 40. Sd. 7,332-48 ft.; O.&G.; S.D.
Buckingham Oil Co. No. 1-C McCampbell, 33.8-ac. tr., Blk. 27. Drlg. 5,625 ft.
Danrey Oil Co. No. 1 Hay Est., Lot 13, Blk. 8. R.U.
P. L. Derteison No. 1 McCampbell, Lot 5, Blk. 37 (W.O.). Perf. 7,110-14 ft. and 7,135-38 ft.; comp.; 75 B.P.D. dist.; ⅛-in. ck.; T.D. 7,154 ft.
Graham & Buckingham Oil Co. No. 1-D Porterfield, Lot 11, Blk. 9. M.I.M.
Landreth Prod. Co. No. 4-A McCampbell, Lots 1 and 2, Blk. 39. Drlg. 4,912 ft.
Peach Tree Oil Co. No. 1 Porterfield, Lot 16, Blk. 10. R.U.
Shasta Oil Co. No. 1 Vaughn, Lot 13, Blk. 10. Drlg. 6,526 ft.

Plummer—Bee County

Ann Oil Co. No. 2-B Smith, J. R. Johnson Sur. T.D. 3,066 ft.; set csg. 3,054 ft.; perf. 3,032-35 ft.
W. C. McBride, Inc., No. 1-B Plummer, Johnson Sur. Plug perf. 3,057 ft.
W. C. McBride No. 1 Schneider, 200 ft. SW line, 300 ft. SE line, Sur. 2. R.U.

West Tuleta—Bee County

Salt Dome Oil Co. No. 1 Tuleta Mercantile Co., sec. 10, Uranga Gr. T.D. 3,065 ft.; set 5-in. csg. 3,030 ft.; comp.; 25 B.P.D.
Salt Dome Oil Co. No. 2 Tuleta Merchantile Co., SW¼, sec. 10. Drlg. 2,847 ft.

Alta Mesa—Brooks County

Standard of Texas No. 5 Mestina, Lease No. 1. D.S.T. 5,494-5,505 ft.; rec. S.W.
Standard Oil of Texas No. 2 Garcia, Lse. No. 1. Rng. tbg. 2,555 ft.

Alta Verde—Brooks County

Bishop & Woods No. 1 Maupin, Sur. 311. Set csg. 50 ft.; drlg. sh. 557 ft.
Bishop & Woods No. 4 Singer, 120-ac. tr., Sur. 312. O.W.W.O. (former Nordan & Morris test). Old T.D. 891 ft.; R.U. to deepen.
Lynway Oil Co. No. 1 Singer, Blk. 9, Sur. 436. Sd. 838-43 ft.; comp.; est. 15 B.P.D. on 2-in. tbg.
Dick Young No. 5 Singer, Blk. 12, Sur. 312 (W.O.). T.D. 1,442 ft.; recmtg. csg. 1,447 ft.

Branyon—Caldwell County

F. J. Adams No. 3-B Ellison, Jarman Sur. Comp.; 75 B.P.D.; pmp.; T.D. 2,200 ft.
Chiquita Oil Co. No. 6 Robertson, Neill Sur. T.D. 2,198 ft.; rng. csg.
B. F. Robinson No. 2 Young, J. R. Miller Sur. Set csg. 1,897 ft.; comp.; 15 B.P.D. on pmp.; T.D. 2,171 ft.
Taylor Ref. Co. No. 5-A Branyon, D. Cooper Sur. Fsg. 1,000 ft.
W. M. Vaughy No. 6 Flowers, J. A. Neill Sur. Set csg. 1,869 ft.; W.O.C.
R. S. Wyrick No. 3 Magee. Set csg. 2,060 ft.; W.O.C.

Luling—Caldwell County

B Albright No. 1 Cosey, Henry Sur. Drlg. sh. 456 ft.
Koening Oil Co. No. 10 Tiller, Henry Sur. Comp.; 210 B.P.D.; T.D. 2,113 ft.
Rio Bravo Oil Co. No. 15 Merriweather, J. Henry Sur. Drlg. 80 ft.

Salt Flat—Caldwell County

Chiquita Oil Co. No. 5 Hickman, G. Hinds Sur. Set csg. 2,639 ft.; W.O.C.
Pagenkopf & Jamieson No. 2 Hanson, Hinds Sur. Completing Edw. L. 2,652-53 ft.

Charamousca—Duval County

N. V. Duncan No. 11 Worden-Draught, Sur. 151. Comp.; 132 B.P.D.; 1,526 ft.

Colmena—Duval County

Humble O. & R. Co. No. 7-D, D.C.R.C. Sur. 585. T.D., oil sd. 1,441 ft.; flwg. in pits.

Driscoll—Duval County

Continental Oil Co. No. 16-A, Sur. 448. Sd. 3,439-43 ft.; tstd. gas, oil and S.W.; drlg. 3,447 ft.

Government Wells—Duval County

Central Producers, Inc., No. 4-B Wendt, 40-ac. tr., sec. 43. Sd. 2,449-52 ft.; comp.; 331.2 B.P.D.
Central Prod., Inc. No. 5 Wendt, sec. 43. Sd. 2,447-52 ft.; set 7-in. csg. 2,447 ft.; comp.; 75 B.P.D.

Hoffman—Duval County

Cox & Hamon No. 10 Green-Yoakum, Sur. 118. Sd. 2,737-38 ft.; rng. tbg.
Cox & Hamon No. 15 Green-Yoakum, Sur. 118. Drlg. 1,856 ft.

Labbe—Duval County

Humble O. & R. Co. No. 3 Roos, sec. 119. Set csg. 2,844 ft.; flwg. in pits.
Humble O. & R. Co. No. 6 Roos, sec. 119. Drlg. sh. 1,750 ft.
Magnolia Pet. Co. No. 7 Labbe, Sur. 1. Drlg. 165 ft.

Loma Novia—Duval County

F. J. Gravis No. 4 Hahl, Sur. 64. R.U.
Texas Co. No. 6-B Ruiz, Sur. 41. T.D. 2,-711 ft.; comp.; 141.8 B.P.D. on pmp.

Lundell—Duval County

Govt. Wells Oil Co. No. 3 Lundell, Sur. 140. Drlg. 1,553 ft.
Magnolia Pet. Co. No. 2 D.C.R.C. Sur., sec. 58. Drlg. 2,017 ft.

North Sweden—Duval County

Argo Oil Co. No. 2 Carrillo, E½ SE¼ sec. 9. Set csg. 4,794 ft.; comp.; 216 B.P.D.; ⅛-in. ck.
Argo Oil Co. No. 3 Carrillo, E½ SE¼ sec. 9. Drlg. 4,626 ft.
Argo Oil Co. No. 4 Carrillo, NE¼, sec. 9. Set surf. csg. 515 ft.; W.O.C.
Arkansas Fuel Oil Co. No. 2 Rossi, Blk. 10. Sd. 4,752-70 ft.; comp.; 260 B.P.D. on ¼-in. ck.; set 7-in. csg. at 4,755 ft.
Benedum & Trees Oil Co. No. 1 Parr, 75-ac. tr., San Andres Gr. W.O.C. 964 ft.
Benedum & Trees O. Co. No. 3 Puig, 330 ft. N line, 990 ft. W line lease, San Andres Gr. Set csg. 4,794 ft.; comp.; 120 B.P.D. on ⅛-in. ck.; perf. 4,780-88 ft.
Benedum & Trees Oil Co. No. 4 Puig, 330 ft. W line, 910 ft. S of No. 2 San Andres Gr. Drlg. 550 ft.
Bridwell Oil Co. No. 1 Ancino, 152-ac. tr., Blk. 19. R.U.
Gravis & Doran No. 3 Puig, sec. 24, San Andres Gr. Sd. 4,789-4,800 ft.; set csg. 4,800 ft.; comp.; 217.6 B.P.D.; ⅛-in. ck.
Frank Gravis Oil Co. No. 1 Puig, sec. 24, Andres Gr. Set surf. csg. 509 ft.; W.O.C.
Navarro O. Co. No. 1 Rossi, Blk. 11, sec. 35. Set csg. 5,350 ft.; W.O.C.; T.D. 6,-179 ft.
Parr Oil Co. No. 3 Puig, sec. 24. Drlg. 4,357 ft.
Standard Oil Co. of Kansas No. 2 Parr, 80-ac. tr., San Andres Gr. Cg. 4,721 ft.
Standard Oil Co. of Kansas No. 1 Rossi, Blk. 10, S. Flores Gr. Sd. 4,781-95 ft.; set csg. 4,771 ft.; cg. 4,797 ft.
Standard Oil Co. of Kansas No. 1 Walstad, Lot 9, Sweden Subd. Cg. 4,711 ft.

Palangana—Duval County

Penn Palangana Oil Co. No. 1 C. K. Gravis Sur. 250. S.D. 5,236 ft.

Piedra Lumbre—Duval County

Magnolia Pet. Co. No. 19 D.C.R.C., Sur. 100. Drlg. 1,065 ft.

Sarnosa—Duval County

Magnolia Pet. Co. No. 10 Ruiz, SW¼, sec. 574. Set csg. 2,446 ft.; W.O.C.
Sarnosa Oil Corp. No. 16 Well, 300-ac. tr., Sur. 130. M.I.M.

Seven Sisters—Duval County

W. D. Daube & Co. No. 35 Campos, Sur. 224. Set 10-in. csg. 39 ft.; W.O.C.
Humble O. & R. Co. No. 20 Dowdy-fee, sec. 272. Set csg. 2,557 ft.; flwg. in pits.
Pan American Prod. Co. No. 6-A Welder, Sur. 381. Drlg. sh. 1,817 ft.
Westheimer & Daube No. 34 Campos, Sur. 224. Sd. 2,691-94 ft.; set csg. 2,652 ft.; W.O.C.

Sweden—Duval County

Hiawatha Oil Co. No. 2 Miller, sec. 24 Santos Flores Sur. Sd. 5,754-66 ft.; dry gas; set csg. 5,766 ft.; W.O.C.
Hiawatha Oil Co. No. 3 Southland Life, Blk. 15. Drlg. 5,817 ft.

Thomas-Lockhart—Duval County

Lockhart Bros. No. 1 Parr, Sur. 277. Cg. 4,896 ft.

Pearsall—Frio County

Amerada Pet. Corp. No. 1 Halff & Oppenheimer (W.O.). Old T.D. 6,312 ft.; comp.; 38 B.P.D. on ¾-in. ck.; T.D. 6,-314 ft.; P.B. 5,725 ft.
Amerada Pet. Corp. No. 8 Halff & Oppenheimer, S. A. Ditch Sur. 1,104 (W.O.) Set 7-in. protective csg. 10,341 ft.; stdg.

Hords Creek—Goliad County

Brown & Wheeler No. 1-D Kaufman Trevino Sur. Set csg. 4,454 ft.; perf. 4,370-92 ft. (cor.); D.&A.

Slick—Goliad County

Dirks Bros. No. 1 Allen, O. Marshall Sur. Pettus sd. 4,239-54 ft.; T.D. 4,568 ft.; D.&A.

Darst Creek Extn.—Guadalupe County

L. D. Denman No. 1 fee, Arrington Sur. Set csg. 2,300 ft.; W.O.C.
Kenedy & Crowley No. 1 Jahns, J. K. Davis Sur. T.D. 2,507 ft.; comp.; 100 B.P.D.; est.
Saxet Oil Co. No. 2 Lay, Davis Sur. T.D. 2,780 ft.; D.&A.
Stegal Oil Co. No. 1 Lay, J. K. Davis Sur. O.W.W.O.; old T.D. 2,429 ft.; R.U.

Dunlap—Guadalupe County

Sumas Prod. Co. No. 1 Burns, Highsmith Sur. Drlg. 1,819 ft.

Nolte—Guadalupe County

Waldon Oil Co. No. 1 Herff, Lowell Sur. D.&A. 2,035 ft.

Zoboroski—Guadalupe County

Felmont Oil Co. No. 2 Schuenemann, G. Dewitt Sur. T.D. 2,500 ft.; comp.; 96 B.P.D.

LaBlanca—Hidalgo County

Atlantic Ref. Co. No. 1 Lewis, Blk. 214. Drlg. 7,706 ft.
Dee, Davenport No. 1 Swallow, Blk. 215 Cg. 7,395 ft.

Samfordyce—Hidalgo-Starr Counties

Graham & Kingwood Oil Co. No. 1 Yturria, Porc. 100. Barlow sd. 2,995-3,012 ft.; tstd. oil; cg. further.

Bentonville—Jim Wells County

Camp. Prod. Co. No. 2-B Pope, N½, sec. 13, King Farm Lots. D.&A. 6,261 ft.
Texon Drlg. Co. No. 2 Ralston, 990 ft. N line, 330 ft. W. line, sec. 17. T.D. 5,429 ft.; P.B. 4,285 ft. and comp. dry gasser; S.I.

Sandia—Jim Wells County

O. W. Killam No. 9 Wade, Casa Blanca Gr. M.I.M.
Geo. E. Smith and Memphis Gas Co. No. 1 Wade, Casa Blanca Gr. T.D. 4,796 ft.; prep. drill ahead.
Geo. E. Smith No. 3 Wade, 200-ac. tr., Casa Blanca Gr. Drlg. 5,112 ft.

West Premont—Jim Wells County

Graham & Gilcrease Oil Co. No. 2-B Laughlin, Lots 62 and 67, sec. 77; O.W. W.O. Sd. 2,248-51 ft.; comp.; 97 B.P.D. on ¼-in. ck.
Graham & Gilcrease No. 4 Laughlin, Lots 94 and 99, sec. 77. Perf. 2,248-52 ft.; comp.; 13 B.P.D. on ¼-in. ck.
Homer Presnall No. 1 Haufbauer, Lots 22 and 27, sec. 72. Sd. 3,503-14½ ft.; jetted S.W. and sd.

North Pettus—Karnes County

Magnolia Pet. Co. No. 16 Porter, B.&B. Sur. Sd. 3,721-24 ft.; bailing.

Kingsville—Kleberg County

Clark & Stilzig No. 3 Kivlin, Blk. 8, sec. 39. S.D. 80 ft.
Clark & Stilzig No. 1 O'Henry, Lot 2, sec. 49. O.W.W.O.; T.D. 2,641 ft.; P.B.; perf. and reperf.; completing.
Humble O. & R. Co. No. 6 Hughes, Blk. 39, Lot 1. Drlg. sh.&L. 2,701 ft.

Ezzell—McMullen County

Edwin M. Jones No. 6 Ezzell, NW¼ SE¼, Ragland Sur. 20. Drlg. 1,427 ft.
E. M. Jones No. 8 Ezzell, Russell Sur. Spd.

Jacob—McMullen County

Loma Oil Co. No. 9-B Jacob, Sur. 15. Drlg. 716 ft.

Loma Alta—McMullen County

J. T. Lanier No. 1 Hagist, SE¼, N½, Sur. 481. S.D. 1,503 ft.

Agua Dulce—Nueces County

Conroe Drlg. Co. No. 1 Hagan & Stewart, sec. 206, Bishop Subd. Cg. sh. 5,786 ft.
United Prod. Co. No. 1 Harvey, 1,100 ft. W line, 1,050 ft. N line, tr., M. Garza Sur. Set 5½-in. csg. 7,457 ft.; perf. csg. 7,375-84 ft.; flwg. 112 B.P.D. fluid, reported 25 to 30% oil, remainder S.W. T.D. 9,003 ft.; P.B. 7,388 ft.; T.D. 7,-389 ft.; W.O.C.
United Prod. Co. No. 3-A Rivers, sec. 9, Peters Subd. Drlg. hd. sh. and strks. sd. 6,500 ft.
United Prod. Co. No. 1 Schroeder, sec. 87, Paul Subd., Driscoll ranch. Drlg. sd. 3,896 ft.

Flour Bluff—Nueces County

Humble O. & R. Co. et al No. 1 Graham & Moulter, sec. 41. Drlg. sh. 6,657 ft.
Humble O. & R. Co. et al No. 4-B Miller. sec. 48. Ran screen and lnr.; T.D. sd. 6,670 ft.
Humble O. & R. Co. et al No. 2-A Kate Ritter, Lot 24, Blk. 55. Set csg.; W.O.C. 6,655 ft.
Humble O. & R. Co. et al No. 1 Robertdeau, Lot 8, Blk. 49. T.D. 6,655 ft.; comp.; 20 B.P.D.
Humble O. & R. Co. No. 3 Robertson, Lot 11, Blk. 56. Perf. 6,633-36 ft.; comp.; dry gasser; 5,000,000 ft.
Humble O. & R. Co. et al No. 4 Robertson, Blk. 56. Drlg. sh. 5,377 ft.
Humble O. & R. Co. et al No. 6 Webb, Lot 8, Blk. 47. T.D. 6,665 ft.; W.O.C.

Luby—Nueces County

Seaboard Oil Corp. No. 1 Schaeffer, Blk. 3, Sh. 2, Luby Subd. Drlg. 4,463 ft.

Saxet Heights—Nueces County

Harrison Drlg. Co. No. 2 Whelan, Villareal Sur. Oil sd. 4,039-64 ft.; set csg. 4,-068 ft.; S.D.
H. M. Reed No. 2 Quinn, 28-ac. tr., Villareal Sur. Perf. csg. 4,072-76 ft.; T.D. 4,120 ft.; comp.; 120 B.P.D. on ¼-in. ck.
Ben F. Smith No. 1 Snowden, 13-ac. tr., Villareal Sur. R.U.
S. E. Wilson No. 1 Kaiser, 1¼-ac. tr., Ellendale Gardens No. 1. Sd. 4,064-67 ft.; set csg. 4,110 ft.; W.O.C.

Saxet—Nueces County

Bentex Drlg. Co. No. 4 Harmon, 50-ac. tr., Sur. 416. T.D. 6,950 ft.; set csg.; W.O.C.
Bryant & Howell No. 3 Plachy, Sur. 25. M.I.M.
R. B. Bryant No. 1 Cox & Cryder, 20-ac. tr., Gallagher Sur. 166. Set csg. 4,222 ft.; comp.; gas and dist.; no gauge.
R. B. Bryant No. 2 Frank, Sh. "C," Sur 416. (W.O.). T.D. 5,831 ft.; comp.; 60 B.P.D.
R. B. Bryant No. 6 Harmon, Sur. 416. Set csg. 6,968 ft.; drlg. plugs.
Crown Central Pet. Corp. No. 5 Hunter, Sur. 591. Sd. 4,397-4,405 ft.; drlg. plugs.
Crown Central Pet. Corp. No. 8-B Morgan, 80-ac. tr., Sur. 315. Sd. 4,455-60 ft.; set csg.; comp.; 1,000,000 ft. gas; ⅛-in. ck.; T.D. 4,465 ft.
Donico Prod. Co. No. 3 Donigan, 80-ac. tr., sec. 7, Rge. 6. Sd. 4,078-88 ft.; set csg.; W.O.C.
Donico Prod. Co. No. 5 Donigan, sec. 7, Rge. 6. Cg. 4,217 ft.
Donico Prod. Co. No. 6 Donigan, 80-ac. tr., sec. 7, Rge. 6. Drlg. below surf. csg.
Greta Oil Co. No. 4 Humphries, Stevens Sur. W.O.; old T.D. 5,840 ft.; set csg. 6,982 ft.; comp.; 33 B.P.D.; 5/32-in. ck.
L. Glasscock No. 1-A Johns, McGregor Sur. 582. Set csg. 1,000 ft.; W.O.C.
L. Glasscock No. 1-C Johns, McGregor Sur. 582. S.D.; repairs 5,830 ft.
Tom Graham No. 5 Harmon, 34-ac. tr., Sur. 416. Set csg. 5,760 ft.; rng. tbg.; sd. 5,761-65 ft.
Hiawatha Oil Co. No. 11 Hutchins Stillwell, Blk. 34, Sheppard Farm Lots. T.D. 5,841 ft.; drlg. plugs.
Hiawatha Oil Co. No. 12 Hutchins Stillwell, Blk. 34, Sheppard Farm Lots. Drlg. 4,770 ft.
Hiawatha Oil Co. No. 5-A Smith, Blk. 35, Sheppard Farm Lots. T.D. 5,307 ft.; sdtrkd. 4,800 ft.; cg. 5,831 ft.
Hiawatha O. & G. Co. No. 6-A Smith, Blk. 35, Sheppard Farm Lots. Drlg. 4,317 ft.
Hiawatha O. & G. Co. No. 6-B Smith, Blk. 35, Sheppard Farm Lots. Drlg. 4,419 ft.
Houston Oil Co. No. 4-A Harrell, Blk. 28, Sheppard Farm Lots. Sd. 4,843-48 ft.; set csg., lnr. and screen; completing.
Houston Oil Co. No. 6 Harrell, Blk. 13, Sheppard Farm Lots. Srdg.
Houston Oil Co. No. 27 Morgan, sec. 7, Rge. 6. Sd. 4,857-60 ft.; set csg. 4,850 ft.; recompleting.
Houston O. Co. No. 6 Walton, Villareal Sur. Set csg. 4,350 ft.; perf. 4,272-80 ft.; completing.
H. H. Howell No. 5 Hutchins, 80-ac. tr., Sur. 416. T.D. 6,937 ft.; perf. 3,996-4,-004 ft.; comp.; no gauge.
H. H. Howell No. 2 Kocurek, 57.4-ac. tr., Smith Sur. No. 25. Spd.
H. H. Howell No. 4 Morgan, sec. 415, T.D. 6,920 ft.; set csg. 5,860 ft.; W.O.C.
Kepley Prod. Co. No. 5 Donnigan, 100-ac. tr., sec. 7, Rge. 6. Sd. 4,422-27 ft.
North Star Oil Co. No. 10-E Morgan, W½, SE¼, Sur. 405. Drlg. 3,610 ft.
Phillips Pet. Co. No. 6 Hutchins, Blk. 29, Sheppard Farm Lots. Drlg. 4,221 ft.
Phillips Pet. Co. No. 3 Perkins-LaGasse, 40-ac. tr., Stevens Sur. A-406. Sd. 6,900-51 ft.; set csg. at T.D., 7,101 ft.; perf. 6,925-32 ft.; swbg.
Port O. & G. Co. No. 3 Cox & Cryder. Sd. 3,814-28 ft.; set csg. 3,851 ft.; stdg.
Potter & Snowden No. 1 Taggert, Blk. 5, Sur. 401. S.D. 6,004 ft.
Renwar & Maryland No. 1-A Rand Morgan, Sur. 415, O.W.W.O.; old T.D. 5,-825 ft. Sd. 6,687-92 ft. Tested high grav. oil; fsg. 6,865 ft.; S.D.; W.O.O.
Republic Nat. Gas Co. No. 20 Dunn, Blk. 38, Sheppard Farm Lots Spd.
Richardson Pet. Co. No. 2 Erwin, Sur. 500. Set csg. 6,956 ft.; comp.; 376.8 B. P.D.; perf. 6,900-10 ft.
Richardson Pet. Co. No. 10 Quiros, Blk. 36, Sheppard Farm Trs. Drlg. 6,015 ft.
Richardson Pet. Co. No. 12 Quiros, Sheppard Farm Lot No. 26. Drlg. 4,967 ft.
Richardson Pet. Co. No. 7 Sedwick, 124-ac. tr., Sur. 311. T.D. 6,374 ft.; twisted D.S.; P.B. 5,386 ft.; to sdtrk.
Richardson Pet. Co. No. 8 Sedwick, 184-ac. tr., Sur. 312. Sd. 4,850-58 ft.; comp.; no gauge.
Richardson Pet. Co. No. 9 Sedwick, Dunn Sur. 312. Cg. 4,797 ft.
Southern Minerals Corp. No. 4 Elder, 60-ac. tr., Villareal Gr. Sd. 4,874-81 ft.; set 7-in. csg.; W.O.C.
Southern Minerals Corp. No. 4 Harrell, Blk. 19, Sheppard Farm Lots. Set 10-in. csg. 1,115 ft.
Southern Minerals Corp. No. 6 Isensee, Sur. 404; (W.O.). T.D. 6,412 ft.; recmtg. perf. 5,840-42 ft.; T.A.
T. & T. Oil Co. No. 4 Cain & Sechrist, Blk. 23, Russell Farm Lots. Drlg. 4,437 ft.
Texon Drlg. Co. No. 8 Kocurek, 156-ac. tr., Sur. 316. Sd. 4,552-56 ft.; clg.
Texon Royalty Co. No. 5 Vance, Thos. Gallagher Sur. D.&A.; T.D. 6,924 ft.

Stratton—Nueces County

Camp Prod. Co. No. 2 Wardner, sec. 13, Stratton Subd. D.&A. 4,762 ft.

Sullivan—Nueces County

Lockhart et al No. 1 O. Purl, Lot 2, sec. 7, Ross Peters Subd. No. 2. Sd. 7,032-52 ft.; tried to blow out; cg. 7,054 ft.

Midway—San Patricio County

Phillips Pet. Co. No. 2 Ivey, sec. "K," Paul Subd. Spd.
Phillips Pet. Co. No. 2 Schmidt, sec. 83. R.U.
Sun Oil Co. No. 1 Coggin, sec. 82. M.I.M.

Plymouth—San Patricio County

Humble O. & R. Co. No. 1 Baldwin, T. T. Williamson Sur. Drlg. sh. 4,047 ft.
Plymouth Oil Co. No. 78-C Welder, sec. 70. Drlg. sh. 3,897 ft.
Plymouth Oil Co. No. 79-C Welder, sec. 70. Drlg. sh. 3,859 ft.
Sun Oil Co. No. 3 Roundtree, sec. 34, Lot 4. Set csg. 409 ft.; W.O.C.

Taft Field—San Patricio County

Humble O. & R. Co. No. 25 Mayo, Ottman Sur. Sd. 4,349-62 ft.; set 5½-in. csg.; comp.; 9.8 B.P.H.; ⅛-in. ck.; perf. 4,-351-58½ ft.

White Point—San Patricio County

Pan American Prod. Co. No. 1 White Point Dev. Co., 100-ac. tr., Wm. Bell Sur. D.&A. 6,019 ft.

Barbacoas—Starr County

K. E. Merren No. 1-A S.C.C.C., Blk. 34, Lambeth Subd., Porc. 89. Set csg. 5,-417½ ft.; P.B. 5,108 ft.; to sdtrk.

Los Olmos—Starr County

R. M. Mitchell No. 1 Bass, Blk. 6, Sur. 6. Drlg. 286 ft.

Ricaby—Starr County

Carter-Stiernberg No. 1 Vela, Lot 1, Blk. 4, El Tanque Subd., Porc. 84. D.&A. 1,810 ft.
Carter & Stiernberg No. 2 Vela, Porc. 85. D.&A. 1,820 ft.
Sioux Oil Co. No. 4 Ricaby, Porc. 83. Fsg. 1,896 ft.

Rio Grande City—Starr County

J. H. Clopton and Reed No. 4 Tijerina, Lot 12, Sh. 14-C, Porc. 80. Drlg. 1,578 ft.

El Tanque—Starr County

Sun Oil Co. No. 2 Wardner, W 2/7, Porc. 84. T.D. 1,798 ft.; sd. 1,785-98 ft.; tstd. S.W.

Roma—Starr County

Texas Co. No. 6-A Guerra, Sh. 305-D, Porc. 67. Drlg. 2,502 ft.

Bruni-Cole—Webb County

J. B. Cutbirth No. 1 Bruni, Blk. 5, Sur. 8. Drlg. 2,287 ft.
O. W. Killam No. 55 Bruni, Blk. 9, Sur. 8. R.U.
Magnolia Pet. Co. No. 45 Benavides, Blk. 47. D.&A. 3,740 ft.

Killam—Webb County

Humble O. & R. Co. No. 3 Laurel Bros., Sur. 333. T.D. 2,030 ft.; W.O. pmp.
O. W. Killam No. 3 Laurel, Blk. 21, Sur. 333. Cg. 2,069 ft.
Humble O. & R. Co. No. 4 Laurel, Sur. 333. Sd. 2,031-39 ft.; rng. tbg.
O. W. Killam No. 7 Garcia, N½ Sur. 786. Drlg. 1,856 ft.
O. W. Killam No. 10 Garcia, Sur. 786. Tstg. sd. 2,017-25 ft.

Lopez—Webb-Duval Counties

Darby Pet. Co. No. 1 Peal, Sur. 796. Sd. 2,218-19½ ft.; tstg.
C. H. Lewis No. 11 Lopez, Sur. 110. Comp.; 60 B.P.D.; T.D. 2,308 ft.
Valley Osage Oil Co. No. 5 M. Billings, Sur. 109. R.U.

O'Hern—Webb County

Magnolia Pet. Co. No. 8 Benavides, Blk. 32, O'Hern Subd. D.&A. 4,028 ft.
Magnolia Pet. Co. No. 29 Benavides, Blk. 15, El Mesquite Gr. Drlg. 611 ft.
J. J. O'Hern No. 7-C Benavides, Blk. 24. T.D. 2,877 ft.; comp.; 32 B.P.H.
Starr Dev. Co. No. 1 Benavides, 330 ft. N and W lines, Sur. 173. M.I.M.
Sun Oil Co. No. 12 Benavides, Blk. 509. Drlg. 2,607 ft.

LaSal Vieja—Willacy County

Shell Pet. Corp. No. 1 Yturria, Sh. 64, Carricitos Gr. (W.O.); set csg. 7,630 ft.; T.D. 10,286 ft.; P.B. 5,129 ft.; perf. 5,-110 ft.

Escobas—Zapata County

Earl Calloway No. 14 Santos, Sh. 7, Fansler Part. D.&A. 1,756 ft.
Nordan & Morris No. 14 Bustamente, Sh. 33, Fansler Part. Drlg. 621 ft.
Nordan & Morris No. 29 Bustimante, Sh. 33, Fansler Part. T.D. 1,121 ft.; W.O. P.E.
Nordan & Morris No. 30 Bustimante, Sh. 33, Fansler Part. R.U.
B. W. Roscoe No. 28 Bustamente, Sh. 33, Fansler Part. Drlg. 518 ft.
Texas Co. No. 102 Jennings, Cerrito Blanco Gr. T.D. 1,251 ft.; comp.; 35 B.P.D.

NORTH TEXAS WILDCATS

Archer County

Bridwell Oil Co. No. 1 Oil Inv. E, sec. 125, Harris Sur. Drlg. 2,320 ft.
O. P. Darsey No. 1 J. T. Longley, sec. 1839, T.E.&L. Sur. Drlg. 944 ft.
Wm. F. Dodson No. 1 Harmonson, J. B. Hinds Sur. A-193. Spudded.
T. G. McCurdy No. 2 M. F. Martin, H. Grooms Sur. A-155. Spudded.
W. B. Omohundro No. 1 J. Penartz, Clark & Plumb Sur. No. 4. Drk.
J. G. Steele No. 1 J. H. Garvey, T.E.&L. Sur. 1,855. Testing S.L. 739-58 ft.
M. L. Threet No. 1 J. M. Collins, Blk. 33, G. P. Meade Sur. Spudded.

Clay County

Foster Minerals Corp. No. 1 V. H. Yarbrought, M. Lassiter Sur. A-288. Drlg. 3,010 ft.
W. Gant No. 4 C. M. Worsham, sec. 38, G. P. Meade Sur. Drlg. 2,950 ft.

Collin County

F. Jones No. 1 Sherley, G. Morrison Sur. S.D.O. 3,003 ft.

Cooke County

Benton & Holmes No. 1 Gibson, J. English Sur. A-345. S.D. water 950 ft.
Kiel & Kiel No. 1 Sears, Barnett Sur. Drlg. 750 ft.
L. A. McWhirter, tr., No. 1 W. J. Davidson, Geo. Dooley Sur. A-301. Fsg. 600 ft.
J. G. Richards et al No. 1 J. A. Yosten, T. Scott Sur. A-90. Fshg. one joint pipe.
Seitz, Comegys & Seitz No. 1 J. C. Whaley, J. Hagarty Sur. A-508. Loc.
Texas Co. No. 1 J. F. Marshall, A. Burns Sur. A-49. Drlg. 4,785 ft.
Whitfield, Pearson & Grimes No. 1 C. F. Bundy, P. P. Cary Sur. A-1,239. O.S. 2,148-58 ft.; est 25 bbls.

Denton County

California Ref. Co. No. 1 W. & S. Life Ins. Co., B.B.B.&C. Sur. A-783. S.S.O. 1,461-65 ft; 6⅝-in. 1,460 ft.; W.O.C.; S.D.O.; drk. blown down.
Manning & Moore No. 1 Dora Ratchford, J. Walters Sur. T.D. 2,102 ft.; recmtg. 6⅝-in. 1,910 ft.
Regan & Davis No. 1 Williams, M.E.P.&P. Sur. A-927. Cem. surf. pipe and S.D.O.

Foard County

O. P. Burnham No. 1 Ward, sec. 21, H.& T.C. Sur., Blk. 8. S.D. for wire line.

Grayson County

Denver P. & R. Co. No. 1 Cannon, A. Berry Sur. A-130. Drlg. 2,025 ft.
Mildred Oil Co. No. 1 F. R. DeCordova, H. Stewart Sur. A-1,072. Drlg. 3,780 ft.

Montague County

Montague Oil Co. et al No. 1 J. A. Brite, sec. 2,882, T.E.&L. Sur. Drlg. 1,625 ft.
J. W. Sorrell et al No. 1 J. E. Walthall, S. H. Smith Sur. A-662. S.D. 2,000 ft.
Ventex Investments, Ltd., No. 1 S. E. Bell, sec. 11, M.E.P.&P. Sur. T.D. 3,220 ft.; S.D. water.

Wichita County

Golding & Cochran No. 1 Mrs. Grace Jennings, sec. 12, H.T.&B. Sur. Drlg. 1,002 ft.
Jones & Cowden No. 1 Perkins & Cullum, sec. 21, D.C.S.L. Sur. Spudding.
LeBus No. 1 J. F. Miller, W. R. Eaves Sur. A-447. Drk.
W. B. Omohundro No. 1 First Natl. Co., sec. 28, W.V.F.L. Sur. Loc.
W. B. Omohundro No. 1 J. A. Kemp, Blk. 52, W.V.F.L. Sur. Loc.
Perkins & Cullum No. 2 T. L. Burnett et al A. Spudded.
Peterson & McCarty No. 1 J. N. George. S.A.&M.G. Sur. A-268. Loc.
E. J. Stump No. 1 M. P. Bishop, L. Netherley Sur. A-240. Drk.
F. M. Tollett No. 1 J. L. Jackson, G. P. Marion Sur. A-184. Spudded.

Wilbarger County

Barry & Hayes No. 1 McGill, sec. 3, Blk. 9, H.&T.C. Sur. Drlg. 1,620 ft.
W. W. McDonald No. 3 Waggoner A. sec. 26, H.&T.C. Sur. Testing lime 3,638-54 ft. with acid; C.O.

Wise County

Latex Oil Co. No. 1 C. R. Smith, J. Couch Sur. A-104. S.D.O. 3,300 ft.

Young County

H. J. Cox No. 1 W. T. Donnell, J. M. Smith Sur., sec. 1-7-1879. S.D.O. 1,810 ft.
Eppenauer Drlg. Co. No. 1 J. B. Hazelton, J. Harmon Sur. A-1,607. Spudding.
Hickok et al No. 1 A. P. Martin, V. H. Twilliger Sur. A-1,883. Sd. 2,103-18 ft.; est. 30 bbls.; will D.D.
T. D. Humphrey No. 1 S. R. Ragland, T. B. Kuykendall Sur. Drlg. 1,420 ft.
Lupton & Long No. 1 W. I. Gilmore, J. Gilmore Sur. A-2,135. Drlg. 1,980 ft.
Pitzer & West No. 1 Norton "B", sec. 615, T.E.&L. Sur. Drlg. 3,930 ft.
H. Zweifel No. 1 R. D. Sewell, M. Case Sur. A-1,402. Drlg. 4,080 ft.

E. C. TEXAS WILDCATS

Anderson County

Humble O. & R. Co. No. 1 Mrs. S. Hassell, J. Beard Sur., 2 mi. N of Jarvis. Drk.

Bowie County

Chew & Bassett No. 1 Barkman. S.D. 2,-851 ft.
Ferguson & Hill No. 1 Breckenridge. S.D. 2,765 ft.
Woodley & Bentley No. 1 Lumpkin. Cg. 4,725 ft.

Falls County

E. B. Collard et al No. 1 P. Neikamp, W. Hampton Sur., 3 mi. E of Lott. S.D. 280 ft.
M. Hays et al No. 1 Mrs. J. J. Hodges, 450 ft. from N and E of 75-ac. tr., N. K. Robinson Sur., 5 mi. SW of Lott. M. I.R.

Freestone County

Holt et al No. 1 W. H. Chambers, 660 ft. from S and E of tract in W. D. Allison Sur., 2¾ mi. N of Keechi 5,200-ft. test. Loc.
C. E. Rossiter No. 1 J. P. Fulton in J. P. Fulton Sur., 2½ mi. E of Donie. S.D. 950 ft.
Stroude et al No. 1 P. Mullens, R. D. Sloan Sur., 6 mi. NE of Fairfield. T.D. 341 ft.

Henderson County

American Liberty Oil Co. et al No. 1 LaRue & Johnson, 350 ft. out of NW cor. of Blk. 11, P. Jackson Sur., 2 mi. W of LaRue. Loc.
R. J. Paschal No. 1 H. M. Wilson, Thos. Caro Sur., 4½ mi. N of Malakoff. Loc.
Tide Water Assoc. et al No. 2-C McElreath & Suggett. W. P. Wyche Sur. Top Woodbine 4,450-70 ft.; Georgetown 5,070 ft.; drlg. 6,909 ft.

Hunt County

Stanolind O. & G. Co. No. 1 J. P. Hawkes R. Ragsdale Sur., near Campbell. Travis Peak 5,965 ft; T.D. 6,570 ft.; drill pipe stuck.

Limestone County

Pure Oil Co. No. 16-T Kendrick, P. Vorella Sur., Mexia field. Drlg. 6,300 ft.

Nacogdoches County

G. C. Collier and Corley No. 1-A A. T. Mast, 14 mi. SW of Nacogdoches, 330 ft. from N and E of 180 ac. in T. S. Lambert Sur., 750 ft. N of No. 1. M.I.M.

Navarro County

Mues & Low No. 1 C. Berry, 1 mi. N of Dawson, in W. H. Moss Sur., formerly McCullough et al No. 1 Berry. O.W.D.D.; T.D. 1,490 ft.; R.U. to deepen.
T. Sharpe et al No. 1 E. B. McDowell, T. Jordan Sur., ½ mi. S of Bazzett. Drlg. 312 ft.

Red River County

Roy I. Carter Drlg. Co. No. 1 J. A. Tutt, C 40-ac. tr. in D. Hart Sur., 2 mi. S of Avery. S.D. 410 ft.
Texas Trading Co. No. 1 Southern Pine Lbr. Co., D. Burton Sur., 12 mi. N of Clarksville. W.O.C. 100 ft.

Rusk County

Barnett Pet. Corp. No. 1 S. C. Sanford W. A. Corder Sur., 10 mi. E of Mt. Enterprise. Drlg. 5,982 ft.
General Crude and others No. 1 Bivins Est., R.U. R. Williams Sur., 6 mi., N of Latum. Drlg. 4,823 ft.
J. Merrick et al No. 1 Tipps, T. Uzzell Sur., 6 mi. S of East Texas field. Top sd. 3,886 ft.; S.D. 3,890 ft.
Nivia Oil Co. No. 1 Citizens Natl. Bank, M. D. Carmel Sur. 2½ mi. SE of Henderson. Top Georgetown 3,340 ft.; drlg. 3,761 ft.
J. W. Shipman et al No. 1 Citizens Bank J. J. Y'Barbo Sur., 4 mi. NE of Henderson. S.D. 4,340 ft.

Upshur County

F. W. Maddox No. 1 S. T. Buie, J. M. Dunn Sur., 4 mi. E of Gilmer. Austin 3,629 ft.; top Woodbine 3,717 ft.; T.D. 3,751 ft.

EAST TEXAS

(Border Counties)

Cass County

Bay Oil Corp. No. 1 W. R. Cobb, G Crowder Sur. Drlg. 5,550 ft.
Bay Oil Corp. No. 1 W. B. Parker, G. Crowder Sur. Drlg. 5,862 ft.
G. H. Chamblee No. 1 Collett, J. S. Smith Sur., 20-ac. tr. 7-in. 5,980 ft.; T.D. 5,-995 ft.
Magnolia Pet. Co. No. 3 W. M. Hall, Wilson Robinson Sur. Rng. 7-in.; T.D. 6,076 ft.
Magnolia Pet. Co. No. 7 W. M. Hall, J. N. Jackson Sur. Comp.; flw. 322 B.P.D.; T.D. 6,050 ft.
Magnolia Pet. Co. No. 18 L. Haywood, P. Evans Sur. T.D. 6,031 ft.; tstg.
R. W. Norton No. 4 Davis, H. Holbert Sur Drlg. 3,445 ft.
R. W. Norton No. 1 Hussey, P. Evans Sur. Drlg. 1,171 ft.
R. W. Norton No. 8 Davis, H. Holbert Sur. Drlg. 3,765 ft.
R. W. Norton No. 1 W. & E. Starke. Dudley Gilliam Sur. Drlg. 5,322 ft.
R. W. Norton No. 2 W. and E. Starke, D. Gilliam Sur. Drlg. 3,404 ft.
Ohio Oil Co. No. 19 R. P. Willis, S.F.I.W Sur. Comp.; flw. 14 B.P.H.; T.D. 5,-957 ft.
W. G. Ray Drlg. Co. No. 2 Parker, G. Crowder Sur. Drlg. 5,433 ft.
United Prod. Co. No. 3 Allday, P. Evans Sur. Drlg. 5,980 ft.
United Prod. Co. No. 4 Allday, P. Evans Sur. Drlg. 2,293 ft.
United Prod. Co. No. 1 Baugus Unit, Cass Co. Sch. Ld. Sur. 13-in. cmtd. 225 ft.
United Prod. Co. No. 1 fee, H. Holbert Sur. Drlg. 3,995 ft.
United Gas No. 1 Threwer, J. S. Smith Sur. Comp.; flw. 70 B.P.D.; T.D. 6,046 ft.

Marion County—Rodessa

Arkansas-La. Gas Co. No. 1 Allen Houston, A. D. S. Coy Sur. Comp.; flw. 541 B.P.D.; T.D. 6,076 ft.
Arkansas-La. Gas Co. No. 1 J. P. Fant, L. P. Cadenhead Sur. Drlg. 4,904 ft.
Fohs Oil Co. No. 1 Mary Reynolds, A. D. S. Coy Sur. Drlg. 5,960 ft.
Mid-Continent Pet. Corp. No. 1 Sory, A. D. S. Coy Sur. 7-in. 6,058 ft.; T.D. 6,-101 ft.
United Prod. Co. No. 1 Hutchinson, A. D. S. Coy Sur. Drlg. 3,929 ft.

Panola County

Glassell & Glassell No. 1 Pierce & Chesbro, Julia Soape Sur. T.D. 5,881 ft.; fsg. for D.S.
Magnolia Pet. Co. No. 2 E. A. Hull, Thos. Applewhite Sur. Drlg. 6,947 ft.

Shelby County

Wm. Redditt No. 1 Pickering Lbr. Co., SE cor. Stephens English Sur. T.D. 4,108 ft.; acd. 2,000 gals.; prep. set csg.; gas flow about 4,000,000 ft. per day.

WEST TEXAS WILDCATS

Andrews County

Amerada Pet. Corp. No. 1 L. Littman, sec. 6, Blk. A-29, P.S.L. Sur. T.D. 4,401 ft.; P.B. to 4,391 ft.; T.P. 4,316 ft.; acidized twice; swabbed 5½ bbls. fluid per hour; 10 per cent B.S.&W.; to deepen.
American Liberty O. Co. No. 1 E. Cowden, 660 ft. N and 1,980 ft. W, sec. 14, Blk. A-55, P.S.L. Sur.; W.O.C. 2,639 ft.
W. G. Blanchard et al No. 1 Cox, C SW sec. 4, Blk. A-30, P.S.L. Sur. Drlg. 3,580 ft.
M. J. Delaney No. 1 E. P. Moore, sec. 12, Blk. A-20, P.S.L. Sur. Drlg. 2,192 ft.
Drlg. & Expl. Co. No. 1 Thornberg, sec. 8, Blk. A-42, P.S.L. Sur. Loc.
Empire O. & R. Co. No. 1 Biles, sec. 12, Blk. A-31, P.S.L. Sur. T.D. 5,010 ft; to P.B.; showed water on D.S. test.
M. S. Forgeron et al No. 1 Lockhart & Brown, C NE¼ sec. 20, Blk. A-41, P.S.L. Sur. R.U.
Sinclair Prairie Oil Co. No. 1 Emma Cowden, sec. 11, Blk. 44, Twp. 2n, T.&P. Sur. Fsg. 4,070 ft.
Hargrove et al No. 1 Riordan, NW¼, sec. 10, Blk. A-44, P.S.L. Sur. Drlg. 3,538 ft.
Humble O. & R. Co. No. 4 Walker, sec. 6, Blk. A-43, P.S.L. Sur. T.D. 4,463 acidized; flowed 60 bbls. per hr. on gas lift.
Landreth Prod. Co. No. 1 L. Jones, sec. 11, Blk. A-42, P.S.L. Sur. Fsg. 4,416 ft.

Bailey County

Etz & Robinson No. 1 Enochs, Tract 66, League 182, Floyd Co. School Lands Sur. Spudded.
E. L. Wilson et al No. 1 Yellow House Land Co., Labour 4, Abner Taylor Lge. 700. Elev. 3,687 ft.; T.D. 4,497 ft.; drlg. plug.

Brewster County

F. C. Dodson No. 1 Texas American Synd., sec. 66, Blk. 10, G.H.&S.A. Sur. Drlg. 5,337 ft.
Storey No. 1 Wilson, sec. 3, Blk. 212, T.& St.L. Sur. Drlg. 2,432 ft.

Cochran County

Ingleright & Fogelson No. 1 Houston, W.O.C. 4,807 ft.
Pete Wiggins et al No. 1 C. Slaughter Dean. C Lab. 26, League 92, Lipscomb C. Sch. Ld. W.O.C. 280 ft.

Coke County

H. E. Ogden et al No. 1 Rawlins, sec. 390, Blk. 1-A, H.&T.C. Sur. S.D. 515 ft.
Plymouth Oil Co. No. 1 Mrs. Mary Hanna, sec. 252, Blk. LA, H.&T.C. Sur., 1½ mi. SW of Blackwell. T.D. 3,214 ft.; U.R. csg.

Crane County

Gulf Oil Corp. No. 2 McKnight, sec. 9, Blk. B-21. Drlg. 5,404 ft.; P.B. to 3,450 ft.; S.D.

Crockett County

R. H. Henderson No. 1 C. B. Haun et al. Drlg. 723 ft.
Moore Bros. No. 1 P. Perner. M.I.M.
Superior Oil Co. of Calif. No. 1 J. S. Todd, C SE¼ sec. 55, Blk. UV, G.C.&S.F. Sur. Drlg. 6,964 ft.

Dawson County

R. Allbaugh No. 1 Higgenbotham, Labour 24, League 269, Moore Co. Sch. Lds. Loc.
R. Albaugh No. 1 D. Hogg, SE of SE sec. 17, Blk. 34, 4n, T.&P. Sur. Loc.
E. L. Wilson No. 1 Scanlon, Sec. 83, Blk M, E.L.R.R. Sur. Drlg. 3,917 ft.

Dickens County

C. E. Litchfield No. 1 Harris, sec. 354, Blk. 1, H.&G.N. Sur. Drlg. 670 ft.

Edwards County

A. P. Carter No. 1 F. D. Sweeten, S&E sec. 48, Blk. 2, B&B Sur., 1½ mi. E of Rock Springs. S.D. 700 ft.

Ector County

Fuhrman Pet. Corp. No. 1 E. Cowden, sec. 41, Blk. 43, Twp. 2s, T.&P. Sur. M.I.M.
Phillips Pet. Co. No. 1 Gist, sec. 2, Blk. 42, Twp. 2s, T.&P. Sur. T.D. 203 ft. Drlg. plug.
Shasta Oil Co. No. 1 K. Sands, sec. 32, Blk. 44, T.&P. Sur. Loc.

Fisher County

Anderson & Kerr No. 1 Caldwell, sec. 169, Blk. 2, H.&T.C. Sur. Loc.
Lewis Prod. Co. No. 1 Marrow, sec. 172, Blk. 2, H.&T.C. Sur. Drlg. 425 ft.
Southern Oil Co. No. 1 Robinson, sec. 172, Blk. 2, H.&T.C. Sur., 2½ mi. NE of Raton. T.D. 3,505 ft.; to test.
Tide Water Associated Oil Co. No. 1 Joe Robinson, W½ NE¼ sec. 172, Blk. 2, H.&T.C. Sur. W.O.C. 3,480 ft.

Gaines County

Amerada Pet. Corp. No. 1 Cox, NW cor. sec. 380, Blk. G, C.C.S.D.&R.G.N.G. Sur. Loc.
Amerada Pet. Corp. No. 1 A. Faskin, sec. 160, Blk. G, W.T.R.R. Sur. Drlg. 5,162 ft.
Amerada Pet. Corp. No. 1 Matthews, sec. 417, Blk. G, C.C.S.D.&R.G.N.G. Sur. Drlg. 4,369 ft.
Argo Royalty Co. No. 1 Jones. Drlg. 3,-960 ft.
Carter et al No. 1-B Wasson, sec. 47, Blk. AX, P.S.L. Sur. Drlg. 2,300 ft.
A. G. Carter et al No. 1 Moore-Langdon, sec. 44, Blk. A, P.S.L. Sur. Drlg. 7,828 ft.
Continental O. Co. No. 1 Jones, sec. 22, Blk. A-7, P.S.L. Sur. W.O.C. 4,838 ft.
Continental Oil Co. No. 1 Moore, sec. 46, Blk. AX, P.S.L. Sur. T.D. 2,105 ft.; set csg.
T. N. Sloan et al No. 1 Barber, NE cor. sec. 19, Blk. A-28, P.S.L. Sur. Sul. wtr. 4,725-28 ft.; T.D. 4,759 ft.; hit water; to deepen.

Garza County

S Caprito No. 1 Post Estate, sec. 230, Blk. 5, K. Aycock Sur. T.D. 3,608 ft.; P.B. to 3,150 ft.; S.D.

Glasscock County

Moore Bros. No. 1 King, sec. 46, Blk. 36, Twp. 1s, T.&P. Sur. Drlg. 2,372 ft.

Hockley County

Frank A. Bates No. 1 Lockett, C of NE of SW sec. 5, Blk. 1, P.S.L. Sur. M.I.M.
R. F. Duggan et al No. 1 Yellow House Land Co., cen. Labour 11, League 718. State Capitol Lds. W.O.C. 4,100 ft.
Stanolind O. & G. Co. No. 1 A. A. Slaughter, C SW¼ Labour 76, League 37, Zavalla Co. Sch. Lds. Sur. Drlg. 4,416 ft.

Howard County

Iron Mt. Oil Co. No. 1 D. H. Snyder, sec. 28, Blk. 30, Twp. 1s, T.&P. Sur. Drlg. 2,260 ft.

W. F. McDermott et al No. 1 Lucas, sec. 18, Blk. 29, Twp. 1n, T.&P. Sur., 5 mi. N of Dodge pool. R.U.S.T.

Hudspeth County

Haymon Krupp Oil & Ld. Co. No. 1 Thaxton, SE¼ sec. 34, Blk. 74, Twp. 6. Cmtd. csg.; fsg. 3,076 ft.

Jeff Davis County

H. D. Wilcox et al No. 1 Jones-Coffield. T.D. 2,100 ft.; set csg.

Loving County

Barnett Pet. Co. No. 1 Johnson, sec. 2, Blk. 57, Twp. 1, T.&P. Sur. Drlg. 540 ft.

Barnett Pet. Corp. No. 2 W. D. Johnson, sec. 12, Blk. 56, Twp. 1, T.&P. Sur. Drk.

Finley et al No. 1 W. D. Johnson, sec. 24, Blk. 56, Twp. 1, T.&P. Sur. T.D. 3,963 ft.; swabbing.

Woodley Pet. Co. No. 1 Kloh, sec. 21, Blk 55, Twp. 1, T.&P. Sur. S.D. 1,573 ft.

Mitchell County

Grisham-Hunter Corp. No. 1 Morrison, sec. 34-29-1n, T.&P. Sur. Drlg. 2,832 ft.

Harris & Anderson No. 1 A. F. King, sec. 11, Blk. 28, Twp. 1s, T.&P. Sur. S.D. 385 ft.

Mitchell O. & G. Co. No. 1 Z. Morrison, sec. 36, Blk. 29, Twp. 1n, T.&P. Sur. Drlg. 2,561 ft.

Pecos County

Cannon & Cannon No. 1 University, sec. 2, Blk. 20. Drlg. 1,111 ft.

Dobbs No. 1 University, sec. 30, Blk. 18. Drlg. 1,747 ft.

K. Kimberlin No. 1 Humble-Young, sec 49, Blk. 10, H.&G.N. Sur. Fsg. 1,260 ft.

Phillips Pet. Co. No. 1 Grierson, sec. 71, Blk. QW, T.C.R.R. Sur., 10 mi. NW of Fort Stockton. R.U.R.

G. J. Smith No. 1 W. E. Smith, sec. 37, Blk. 1, I.&G.N. Sur. T.D. 1,592 ft.; bailing.

Tex-Mex Pet. Co. No. 1 Williams, sec. 79½, Blk. 8, H.&G.N. Sur. Drlg. 2,115 ft.

S Thompson No. 1 Elsinore Cattle Co., sec. 54, Blk. D, G.C.&S.F. Sur. Drlg. 5,418 ft.

Trans-Pecos Oil Co. No. 1 Gallagher, sec 9-51-10, T.&P. Sur. S.D. 1,475 ft.

Trans-Pecos Oil Co. No. 1 Popham. S.D. 535 ft.

Young No. 1 Perry, sec. 3, Blk. Z, T.C. R.R. Sur. Drlg. 1,840 ft.

Presidio County

L. C. Brite No. 4 fee, C NW¼ sec. 113, Blk 12, G.H.&S.A. Sur. T.D. 3,575 ft.; C.O.

A. H. Main No. 1 Greenlee, sec. 40, Blk 347, 13 mi. NE of Marfa. No report.

Sadler Bros. et al No. 1 Bagley. S.D. 3,315 ft.

Reagan County

K. E. Sherman No. 1 W. E. Friend, SW cor. sec. 3, Wm. Allen Sur. S.D. 1,064 ft.

Moore Bros. No. 1 University, sec. 8, Blk. 7. Spudded and S.D.

Reeves County

Barnett Pet. Corp. No. 1 Ely, sec. 38, Blk. 71, P.S.L. Sur., 12 mi. NW of Toyah. S.D. 480 ft.

General Crude Oil Co. No. 1 T. P. Land Trust, C NE¼ sec. 1⅞, Blk. 56, Twp 2, T.&P. Sur. Top Rustler 1,804 ft.; drlg. 2,000 ft.

Runnels County

Hall Oil Co. No. 1 Beddo, sec. 51, Thompson Casey Sur. R.U.R.

K Z Oil Co. No. 1 B. Fletcher, E. C. Good Sur. S.D. 750 ft.

Price & Kramer No. 1 Giesecke, Blk. 227, Hughes Sur. S.D. 2,503 ft.

Stevens & Glover No. 1 Fowler, sec. 150, E.T.R.R. Sur., 2 mi. NE of Ballinger S.D. 480 ft.

Schleicher County

J. M. Cooper No. 2 B. Page, sec. 40, Blk. L, G.H.&S.A. Sur. T.D. 2,450 ft.; straight-reaming.

Tex.Tor Oil Corp. No. 1 Judkins & Spencer, C of SW¼ sec. 33, Blk. A, A.&B Sur. Drlg. 1,432 ft.

Scurry County

C. W. Guthrie et al No. 1 F. W. Hardee, sec. 99, Blk. 97, H.&T.C. Sur. S.D.

Terry County

Anthony & Rice No. 1 Brownfield, C NW¼ sec. 28, Blk. A-1, E.L.R.R. Sur. Drlg. 2,465 ft.

Crump & Corrigan No. 1 Lewright, 660 ft. NE, sec. 1, Blk. C-37, P.S.L. Sur. T.D. 5,133 ft.; P.B. to 4,996 ft.; drlg. out bridge.

R. L. Foree No. 1 A. E. Pool, sec. 54, Blk. D-11, D.&S.E. Sur. S.D. 4,847 ft.; W.O.C.

Upton County

Maverick Oil Co. No. 1- Holmsley, sec. 16, Blk. B, C.C.S.D.&R.G.N.G. Sur., 14 mi. NE of Rankin. Drlg. 1,002 ft.

Ward County

F. H. Murphy et al No. 1 Monroe, sec. 210, Blk. 34, H.&T.C. Sur. Drlg. 3,133 ft.

Magnolia Pet. Co. No. 1-55 Sealey, sec. 55, Blk. F, G.M.M.B.&A. Sur. T.D. 3,049 ft.; P.B. to 2,756; drlg. by whipstock.

Mahres No. 1 Wilson. S.D. 5,085 ft.; 3,850 ft. O.I.H.

L. F. White et al No. 1 Rector-Monroe, E cor. sec. 3, Blk. 1, W.&N.W. Sur. Top Del. L. 4,635 ft.; top Del. sd. 4,670 ft.; T.D. 4,702 ft.; C.O.

Winkler County

Champlin No. 2 Cowden, sec. 2, Blk. 12, P.S.L. Sur. Drlg. 2,438 ft.

Yoakum County

Buhan et al No. 1 Shook Est., sec. 420, Blk. D, John H. Gibson Sur. Drlg. by tools 5,343 ft.

Bohogo & Bond No. 1 West, sec. 606, Blk. D. Drlg. 3,277 ft.

Denver Dev. Co. No. 1 Whittenburg, sec. 831, Blk. D, J. H. Gibson Sur. Drlg. 1,422 ft.

Magnolia Pet. Co. No. 1 Mrs. M. E. Taylor, sec. 201, Blk. D, John H. Gibson Sur. Elev. 3,607 ft.; drlg. 5,107 ft.

Moore Bros. No. 1 Cleveland, sec. 706, Blk. D, J. H. Gibson Sur. Loc.

Texas Co. No. 1 Walker. Drlg. 3,600 ft.

RANGER (CENTRAL TEXAS) DISTRICT

Brown County

Garland Moore et al No. 1 T. S. Williams, 1 mi. NE Grosvenor. Sec. 40, H.T.&B. Sur., Abst. 2037. Spdg. & S.D.

Callahan County

Hal Hughes No. 1 Poindexter, 330 ft. fr. N&E of sec. 350, Geo. Hancock. Sur. 2 mi. NE of Oplin. S.D. 460 ft.

J. C. Jackson et al No. 1 Thompson, 2 mi. S. Eula, sec. 30, B.B.B.&C. Sur. Drlg. 1,000 ft.

B. A. Wilkinson, Trustee, No. 1 F. L. Martin, sec. 69, T.&P. Sur., Blk. 14. Drlg. plug.

Coleman County

Dixie O.&G. Co. No. 1 Reaves, 6 mi. NW Bangs, J. M. Rhine Sur. No. 629. S.D. 805 reprs.

Comanche County

N. D. Gallagher et al No. 1 Mrs. B. I. Terry, Desdemona pool, N. H. Kuykendall Sur. Drlg. 3,050 ft.

Eastland County

Barrett & Moon No. 1 Foote, 4 mi. NE Carbon, sec. 9, H.&T.C. Sur., Blk. 2. Spd. and S.D.

Monark O. & G. Co. No. 1 Downtain, sec. 14 H.&T.C. Sur. Blk. 4, 3 mi. N Eastland. Drlg. 1,000 ft.

L. A. Thompson No. 1 C. V. Fox, 4½ mi. S of Ranger, Lot 28, McLennan Sur., Lge. S.D. 1,120 ft.

Erath County

Jess Hickey et al No. 1 W. M. Martin, 2 mi. SE Desdemona, D. J. Otho Millard Sur. A-533. T.D. 1,650 ft.; S.D.

Haskell County

E. W. Marland & H. B. Drake No. 1 Corothers, 6 mi. S Haskell, sec. 67, D. E. Zaaz Sur. Drlg. 500 ft.

Jack County

Everts Drlg. Co. No. 1 D. M. Shown, sec. 833, T.E.&L. Sur., SW cor. of county. S.D. 4,010 ft.

G. M. Gillespie No. 1 O. Loving, sec. 3345, T.E.&L. Sur., 2 mi. SE Jermyn. Set 7-in. 3,125 ft.; S.D. for spdr.

W. H. Hammon, 1 mi. N Rhodes pool, 990 ft. N, 330 ft. W of D. J. Hodges farm, H. Plaster Sur. A-1,569. R.U.R.

Fred Herschback No. 1 Newman, 3 mi. N Bryson, W of Jno. Matlock Sur., Abst. 1,812. Drlg. 600 ft.

Hill & Hill No. 1 Hickman, T. M. League Sur. T.D. 2,910-3,085 ft.; tstg.

Lion O. & R. Co. No. 1 S. Newman, 6 mi. NE Bryson. Drlg. 3,460 ft.

H. B. Madden No. 1 J. L. Mask, sec. 2708, T.E.&L. Sur. S.D. 1,831 ft.

O. J. Murray No. 1 W. J. Eatherly, J. Helmstutler Sur. Drlg. 200 ft.

T. C. Patton No. 1 J. R. Williams, B.S.&F. Sur., 5 mi. SE Rhodes pool. Drlg. 3,435 ft.

R. A. Westbrook No. 1 W. Knox, sec. 83, B.B.B.&C. Sur. S.D. 1,560 ft.

Jones County

Art Cox No. 1 West, 10 mi. E Noodle Creek pool, Lot 72, Godwin Subd., Dewitt Co. Sch. Lds. Drk.

Fain & McGaha Oil Corp. No. 1 J. H. Wheeler. 3 mi. NW Sandy Ridge pool sec. 55, O.A.L. Sur. Drlg. 500 ft.

W. B. Hamilton No. 1 Bertie Thompson, ½ mi. N Hawley, 200 ft. S and E of Lot 6, G. Martinez Sur., Blk. 194. Drlg. 450 ft.

Humble O. & R. Co. No. 1 Teaff Est., E S and W of NE¼ sec. 33, T.&P. Sur., Blk. 18. Loc. for 5,600-ft. Ordovician test; drlg. 4,860 ft.

C. J. Kleiner No. 1 Guitar, 3 mi. S Sayles pool, 150 ft. E and 200 ft. S. sec. 50, Blk. 16, T.&P. Sur. R.U.

S. B. Owens et al No. 1 Galbreath, ½ mi. S of Guitar pool, sec. 45, T.&P. Sur., Blk. 15. S.D. 2,003 ft.; flwg; to acidize.

Frank Oyster et al, 1 mile S Nugent, sec. 11, T.&P. Sur., Blk. 4. Drlg. 1,803 ft.

W. H. Peckham No. 1 Davis et al, 3 mi. SW Lueders. Subd. 8, F. M. Smith Sur. No. 3. T. D. 1,748 ft.; fsg.

Riddle et al No. 1 J. D. Freeman, 8 mi. SW Anson, sec. 6, T.&P. Sur., Blk. 17. 8¼-in. 2,250 ft. C.O.

Southern Oil Co. No. 1 B. W. Thane NE cor. County. Andrew Jones Sur. 114. Drlg. 1,200 ft.

H. A. Swann Jr. No. 1 Keith & Swann, Hawley Twest, 150 ft. from N and E of Blk. 68, Hawley Twest. Loc.

L. B. Tannehill et al No. 1 Willis, 2 mi. NW Sandy Ridge pool, sec. 2, J. C. Patton Sur. Rg. 8¼-in. 1,700 ft.

Texas Inland Oil Co. et al No. 1 Rowell, 5 mi. E Anson, sec. 37, O.A.L. Sur. S.D. 1,955 ft.

Ungren & Frazier et al No. 1 S. W. Harvey, 3 mi. SE Nugent, 1,110 ft. N and 220 ft. E sec. 20, Blk. 14, T.&P. Sur. M.I.M.

Palo Pinto County

Paul Garrett No. 1 Mabry heirs, NE cor. county, sec. 2,572, T.E.&L. Sur. S.D. 470 ft.

Henry Hobbs et al No. 1 Bessie Holt, 4 mi. S. Graford, sec. 1,783, T.E.&L. Sur. S.D. 200 ft.

Earnest Lloyd et al No. 1 Bailey, 3 mi. NE Graford, sec. 2,003, T.E.&L. Sur. S.D. 1,802 ft.

Shackelford County

Humble O. & R. Co. No. 4 Geo. DeLafosse, E C line county, sec. 1550, T.E.&L. Sur. Drlg. 4,050 ft.

M. P. Moore et al No. 1 Geo. Gray, W side Bluff Creek pool, sec. 208, E.T.R.R. Sur. S.D. 1,735 ft.

Stephens County

Barnett Pet. Corp. No. 1 J. Q. Corbett, 4 mi. SE Ivan, sec. 3, S.P.R.R. Sur., Blk. 3. Drlg. 1,370 ft.

Clark & Cowden et al No. 2 Echols Heirs Blk. 3. Drlg. 3,380 ft.

Cox & Caprito No. 1 Donnell, 1 mi. SW Eliasville, sec. 1,208, T.E.&L. Sur. Drlg. 550 ft.

O. J. Perren No. 1 J. K. P. Hughes, NE cor. County of NW¼ sec. 6 A.B.&M. Sur., Abst. 2,683. 7-in. 3,360 ft.; W.O.M.

Philtop O. & G. Co. No. 1 T. M. Corbett, 8 mi. NE Caddo, Edward Romershausen Sur., Abst. 149. Sand 3,952-57 ft.; drlg. 4,000 ft.

W. J. Rhodes No. 1 Black Bros., 8 mi. NE Breckenridge, sec. 1,135, T.E.&L. Sur. Fsg. 500 ft.

Stonewall County

General Crude Oil Co. No. 1 W. J. Bryan, 7 mi. N Hamlin, Subd. 10, Wm. Vardeman Sur. No. 347. T.D. 3,023 ft.; standardizing.

Tarrant County

E. E. Hoffpauir et al No. 2 W. H. Davis, 2 mi. S Arlington, H. Blackwell Sur. S.D.O. 2,140 ft.

Throckmorton County

Long & Bedner No. 1 Everett, 9 mi. S Throckmorton, 1,836 ft. fr. S & 400 ft. fr. W of sec. 1,615, T.E.&L. Sur. Set csg. 4,180 ft.

Wise County

Latex Oil Co. No. 1 Smith, 3 mi. E of Bridgeport, Jas. Couch Sur. S.D. 3,310 ft.

Canadian Fields

(Continued from Page 90)

of Coutts, Range Oil & Gas Co. No. 2 has been located approximately a half mile north of Range No. 1 gasser. Derrick is being erected and equipment moved to location.

Ram River Prospect

About 65 miles west of Red Deer and northwest of Calgary, Ram River Oils, Ltd., is preparing for a test on an anticlinal structure lying along the Ram River, a tributary of the Saskatchewan. The structure discovered last year by Nicholas Haan extends 30 miles with the Madison limestone exposed along its entire length. Ram River No. 1 will be located on the north end of the uplift. The company controls 3,200 acres contributed equally by Tawadina Syndicate and Shell Syndicate, and is planning to drill 5,000 feet if necessary. Four other organizations hold acreage on the south end of the structure.

Shell Investigates Alberta

A party comprising Doctor Schneiberger, Dr. M. Y. Williams and Mr. Clarke, representing interests connected with Shell Oil, recently returned to California after spending several weeks investigating oil prospects in Alberta. The tour included the Crow's Nest Pass area as well as the Turner Valley Home, and foothills structures extending from Moose dome to Hunter Valley, as well as several minor structures.

Ontario Drilling

In the Dover field, Kent County, Ontario, E. P. Rowe No. 3, Bruette farm, River Road, Raleigh Township, got the Trenton limestone high at 2,830 feet and the first gas at 2,962 feet, with flow estimated at 900,000 feet a day. It deepened 12 feet, increasing to 1,300,000, and is deepening for oil.

In the Brownesville field, Oxford County, Aloka Oil & Gas Co. No. 1 has been started in NW Lot 24, Concession 12, Dereham Township.

Rocky Mountain Runs

Estimated daily average production in week ending July 17:

	Bbls.
WYOMING	
Salt Creek	16,030
Big Muddy	1,390
Badger Basin	210
Black Mountain	160
Byron	3,020
Dallas Derby	570
Dutton Creek	50
Elk Basin	450
Frannie	1,210
Garland	2,810
Grass Creek	2,930
Hamilton dome	1,910
Hidden dome	360
Hudson	220
LaBarge	990
Lance Creek	11,880
Lost Soldier	1,120
Medicine Bow	3,100
Midway	30
Oregon Basin	2,550
Osage	890
Pilot Butte	20
Quealy dome	800
Rock River	980
South Casper	460
Poison Spider	290
Teapot	20
Wertz	160
Waugh dome	270
Total Wyoming	54,880
MONTANA	
Border	180
Cat Creek	650
Cut Bank	10,300
Dry Creek	30
Kevin-Sunburst	5,000
Lake Basin	20
Pondera	1,020
Total Montana	17,200
COLORADO	
Florence	130
Fort Collins and Wellington	270
Iles dome	2,900
Moffat	420
Orchard	20
Rangely	80
Tow Creek	140
Price	780
Total Colorado	4,740
NEW MEXICO	
Cooper	6,540
Eaves	1,150
Eunice	31,700
Hardy	1,130
Hobbs	20,010
Jal	1,290
Langlie	1,660
Lynch	840
Lynn	260
Mattix	1,660
Monument	34,350
North Lynch	60
Penrose	2,860
Rhoades	60
Skelly	1,300
South Eunice	1,660
Vacuum	20
Artesia-Maljamar	6,820
Getty	200
Hogback	200
Rattlesnake	710
Table Mesa	90
Total New Mexico	114,570
Total Rocky Mountain region	191,390

STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	May 31,1937	Apr. 30, 1937	May changes	May 31,1936
1. Fuel oil residuum and non-gasoline-bearing crude	61,683,955	61,371,826	+312,129	63,824,264
2. Gas oil and diesel oil	5,923,708	6,162,471	—238,763	7,746,758
3. Gasoline-bearing crude	33,370,816	33,261,772	+109,044	38,734,077
4. Unblended natural gasoline	2,569,706	2,387,318	+182,388	2,133,295
5. Gasoline (not including distributing and service stations)	13,499,045	13,581,194	— 82,149	12,889,851
6. Naphtha distillates	*1,472,504	*1,379,513	+ 92,991	*1,689,495
7. All other stocks	†6,510,515	†6,478,803	+ 31,712	†9,500,622
Total	125,030,249	124,622,897	+407,352	136,518,362
*Estimated amount of unfinished gasoline contained in item No. 6	1,231,742	1,146,571	.....	1,400,989
†Coke included in item No. 7	112,073	119,717	.....	331,003

PERSONAL

SHELDON HARDIN, Shreveport, La., operator and former official of the old Southern Crude Oil Purchasing Company, accompanied by MRS. HARDIN, departed from New York last Saturday on a boat trip to South American ports.

A. F. CARTER, president of the Greta Oil Company, has announced the purchase of the Floboots Corporation, producers in Refugio and Nueces counties, South Texas. The company will open offices in the Shell Building in Houston this month.

EMIL KLUTH, vice president of the Pacific Western Oil Corporation, has been placed in charge of an operating committee to direct future operations of the company in California. He will have as assistants H. M. MACOMBER, vice president of the company; D. T. STAPLES, assistant secretary, and W. G. SIBSON, assistant secretary and treasurer.

EDWARD REISER, formerly state code man in Ohio, has left Columbus, that state, for San Antonio, Tex, where, with associates, he will begin operation of a new oil company.

HARRY H. DIAMOND, independent oil operator of Holdenville, Okla., who has been in a hospital several months undergoing a series of operations, is reported to be recovering rapidly. It was expected he would be able to leave the hospital this week.

W. T. DINKINS, who recently was appointed general sales manager of the Richfield Oil Corporation, has been elected a vice president of the company. Prior to his arrival in Los Angeles to assume his duties with Richfield, Mr. Dinkins was actively engaged in sales work for Sinclair Consolidated Oil Company.

WILLIAM D. MILLER, vice president of the Amerada Petroleum Corporation, of New York, left on his vacation July 17, taking a cruise to South America and California.

G. L. AHRENS, of the Standard Oil Company of New Jersey's London staff, and MISS CONSTANCE Van WICKLEN SEELMAN, of Brooklyn, N. Y., were married recently in London.

JAY TAYLOR, who last year was made general superintendent of the Halliburton Oil Well Cementing Company, Duncan, Okla., has been elected a vice president of the organization. He will continue to fill his former post. His office is in Amarillo, Tex., where he was sent as superintendent in 1926.

A. J. GALLOWAY, Tulsa, vice president in charge of the Mid-Continent area for the Shell Petroleum Corporation, is now at the St. Louis headquarters of the company, performing the duties of the president, ALEXANDER FRASER, while Mr. Fraser is in Europe. R. B. ROARK, production manager in the Mid-Continent area, is taking care of Mr. Galloway's work.

E. A. KOENIG, corrosion engineer for the Magnolia Pipe Line Company, Dallas, Tex., is in a Dallas hospital following a tonsil operation.

W. S. S. RODGERS, president of the Texas Company, visited northern Montana properties of his company on his way to Glacier National Park.

T. E. WARD, of the Oilfield Equipment Company, is now in Europe. He will return to the New York offices of the company about September 1.

HOMER P. LEE, of San Antonio, Tex., has established temporary headquarters in Hattiesburg, Miss., for his leasing activities throughout Mississippi and Florida.

NORMAN A. LINDSAY, traffic manager for the Warren Petroleum Company, Tulsa, accompanied by his family, is spending a vacation in Yellowstone Park.

JOHN HOUSE, assistant superintendent for the Humble Oil & Refining Company, Midland, Tex., has returned from a vacation trip in Ohio and Pennsylvania.

HARRY R. KAY, for several years agent for the Sinclair Refining Company in Chicago, has been named agent in Dallas, Tex., relieving W. C. COCKRELL, who has been transferred to New Orleans. Mr. Kay has moved his family to Dallas.

R. A. BROOMFIELD, executive vice president of the Barnsdall Oil Company; RALPH B. LLOYD, president of the Lloyd Corporation, and NEAL ANDERSON, president of the Pilot Oil Company and former oil umpire, recently have been appointed members of the ways and means committee of the Oil Producers Agency of California.

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

W. W. Tarbell resigns as treasurer of the Pure Oil Company and is succeeded by H. N. Weber.

A large oil property sale in Indiana indicates that production in that state is valued at $1,000 per barrel. The price of crude is 96 cents per barrel.

The late Thomas W. Phillips, millionaire Pennsylvania oil man, bequeaths $30,000 to the University of Oklahoma on condition that it does not solicit or accept any gift from John D. Rockefeller or from a Rockefeller fund or foundation.

20 YEARS AGO

The discovery lease in the Towanda pool in Butler County, Kansas, which has 15,000-barrel wells on it was peddled a year ago to every big oil company in the Mid-Continent at $15 per acre, but they wouldn't touch it.

Sinclair Gulf Oil Company will lay an 8-inch pipe line from the Healdton field in Oklahoma to a Gulf Coast port in Texas.

Agitation for an 8-hour work day for oil and gas field men in California has been resumed. Standard Oil Company of California and prominent contractors favor it.

10 YEARS AGO

The Seminole field in Oklahoma is producing over 500,000 barrels a day or an average of 840 barrels per well. The Corporation Commission, on petition of producers, is expected to stem the flood of oil at a meeting early in August. The Commission has already forbidden new operations outside the pools in the Seminole area at the request of Umpire Ray Collins.

Crude oil production in the United States in the first half of the year broke all records with a total of 444,522,797 barrels or an average of 2,455,927 barrels per day.

CLIFFORD E. SAVAGE, assistant chief scout for the Carter Oil Company, Tulsa, returned this week from a vacation trip.

HAROLD HELLER, of the Anderson-Prichard Oil Corporation, has been transferred to San Antonio, Tex., where he will take charge of the new company offices in the Milam Building.

WALTER ELLIOTT, general superintendent of the Shell Oil Company, Los Angeles, Calif., and a group of friends recently drove into the high Sierras and all returned to Los Angeles with a limit of trout.

JOHN W. CHISHOLM, formerly in the Fort Worth, Tex., office of the Texas Company, has been transferred to the land department and will serve as scout in the North Texas division, with headquarters in Wichita Falls.

R. B. RUTLEDGE, of the geological staff of the Skelly Oil Company in Tulsa, and ATTORNEY CARL WINSOR, Wichita, Kans., have returned from a vacation trip spent on Lake Blaine, in Montana. Bass fishing provided their chief diversion.

C. U. BAY, Bridgeport Conn., banker and manufacturer, is in Denver, Colo., looking after his oil interests. He expects to spend six months each year in that district. He is chairman of the board of the Bay Petroleum Corporation, which is building a refinery in Denver.

J. R. PARTEN, president of the Woodley Petroleum Company, Houston, Tex., has been visiting the northern Louisiana properties of that company over the last week. He attended the Louisiana Department of Conservation hearing in Shreveport on the proposed 160-acre spacing rule for the Cotton Valley field.

PARAGRAPHS

MAX WICKERSHAM, formerly executive secretary of the Indiana Petroleum Association and well known through the oil industry, has been made full-time executive secretary of the Petroleum Retailers Association of Indianapolis.

JOHN M. GRANT, president of the Transamerica Corporation, owner of California Lands, Inc., has announced plans in New York to launch a geophysical and geological campaign on 325,000 acres of land in California. The step is taken with a view to entering the producing and operating division directly rather than through leasing holdings to others.

E. D. CUMMING, recently appointed manager of the Shell Oil Company's refinery in Martinez, Calif., received his technical education at Alabama Polytechnic Institute. He joined the Shell staff in 1923 as a fireman in Los Angeles. In 1935 he was appointed assistant refinery manager at the Dominguez refinery, and the following year went to the Wilmington refinery in the same capacity. Recently he has been acting as technical assistant in the head office in San Francisco.

H. J. COX, Fort Worth, Tex., oil operator, is in the Baptist Hospital in that city suffering from injuries recently received in an automobile accident.

WILLIAM SCHOENEK, district petroleum engineer for the Ohio Oil Company, has been transferred from Henderson, in the south half of the East Texas field, to a similar post in Shreveport, La.

EDSON L. MOTT, midwestern representative of the Pennsylvania Grade Crude Oil Association for the past several years, has resigned to enter the employ of the Crown Central Petroleum Corporation.

REUBEN HURT, of Chickasha, Okla., petroleum engineer for International Petroleum Company in Peru, left New York July 17, returning to his post in South America. MRS. HURT accompanied him.

JOHN R. SUMAN, Houston, Tex., vice president of the Humble Oil & Refining Company, addressed the Houston Advertising Club at a luncheon last week, discussing the Oil World Exposition to be held in Houston next October.

LEROY ADAMS, president of the Galvez Oil Corporation, Tulsa, is spending some time in Texas on business, accompanied by MRS. ADAMS. While in Fort Worth they visited Mrs. Adams' brother, JON R. LONG, oil equipment manufacturer.

A. JACOBSEN, of New York, president of the Amerada Petroleum Corporation; A. M. BLOW, vice president, and A. R. DENISON, chief geologist, were in Houston, Tex., last week in connection with the discovery of a new salt dome and a possible oil field by one of their operations in Coastal Louisiana.

WILLIAM C. DURANT, former automobile magnate and Wall Street financier, has organized the Ludel Oil Corporation in Louisiana and has revealed plans for exploration of 500,000 acres of land in central Louisiana. His first test well is being drilled in Lincoln Parish.

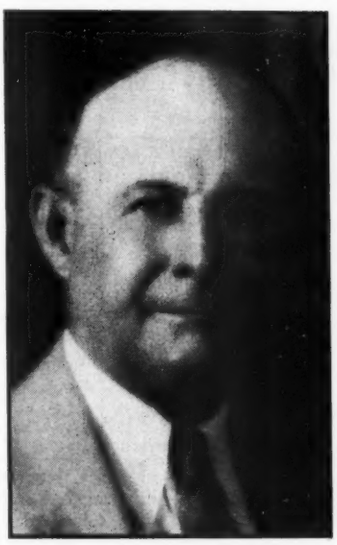
J. DAVIS COLLETT, JR., of Dallas, Tex., has resigned as assistant engineer for the Atlantic Refining Company to become a consulting engineer, with offices in Houston, Tex. He has specialized in bottom-hole pressure and will continue to do so. Mr. Collett also will engage in other phases of production and general engineering, operating in Oklahoma, Kansas and other areas as well as on the Gulf Coast. He is a son of J. D. COLLETT, of Fort Worth, Tex., president of the Mid-Continent Oil and Gas Association. He is a graduate of the University of Oklahoma.

OWEN B. WOOD has entered the service of the Atlantic Refining Company as geologist in the South Texas district at Corpus Christi. He formerly was associated with the Stanolind Oil & Gas Company as field geologist in the South Houston field of Harris County. His new duties will center around the McCampbell field of Aransas County, where the Atlantic Refining Company is a major producer.

F. F. HARDESTY, Fort Worth, Tex., independent operator, formerly vice president of the F.H.E. Oil Company, has left for a European vacation trip. He was kept advised of Texas oil developments by radio-telephone as he traveled across the Atlantic. He conversed thus with R. A. ELLIOTT, secretary of the F.H.E. Oil Company; J. D. BAKER, production superintendent, and NORMAN E. LOOMIS, drilling contractor, all in Longview, Tex.

Asked for Just One Job

R. R. Hobson, general manager of the Houston Oil Company, asked for one job at the beginning of his oil career and he never asked for one after that. The explanation is he got the one he asked for, and promotions from that time on made it unnecessary to ask for any others.



R. R. HOBSON

After high school and business college in Waco, Tex., where he was born in 1884, Mr. Hobson at 17 went to the Spindletop field in that state, expecting to work for a drilling contractor. He changed his mind and instead applied for—and got—a job as gauger with the Higgins Oil & Fuel Company, an affiliate of Houston Oil. The next year, 1903, he was promoted to assistant superintendent of production and pipe lines in the Sour Lake field. Three years later he was advanced to superintendent of the Gulf Coast division. In 1910 the company transferred him to the Louisiana and Arkansas district as manager. In that year too he married Miss Lucy Hart, of Port Arthur.

Following 14 years in the Louisiana-Arkansas area Mr. Hobson was chosen president of the Higgins organization, with his office in Houston. The Higgins holdings were sold gradually until in 1932 liquidation had been completed. Mr. Hobson then was made general manager of the parent concern, the Houston Oil Company. In this post he supervises refining, marketing, traffic, etc., as well as production.

FRED E. WEST, lease broker in northern Mississippi for the past several years, has offices now in Foley, Ala. He is taking up a block in that vicinity.

ED H. SALRIN, vice president of the Tide Water Associated Oil Company, Houston, Tex., has left for a vacation in Europe and will not return until fall.

A. L. DADE, manager of the pipe line department of the Deep Rock Oil Corporation, Tulsa, and MISS MILDRED HUSTON, of Gary, Ind., were married last week in Gary.

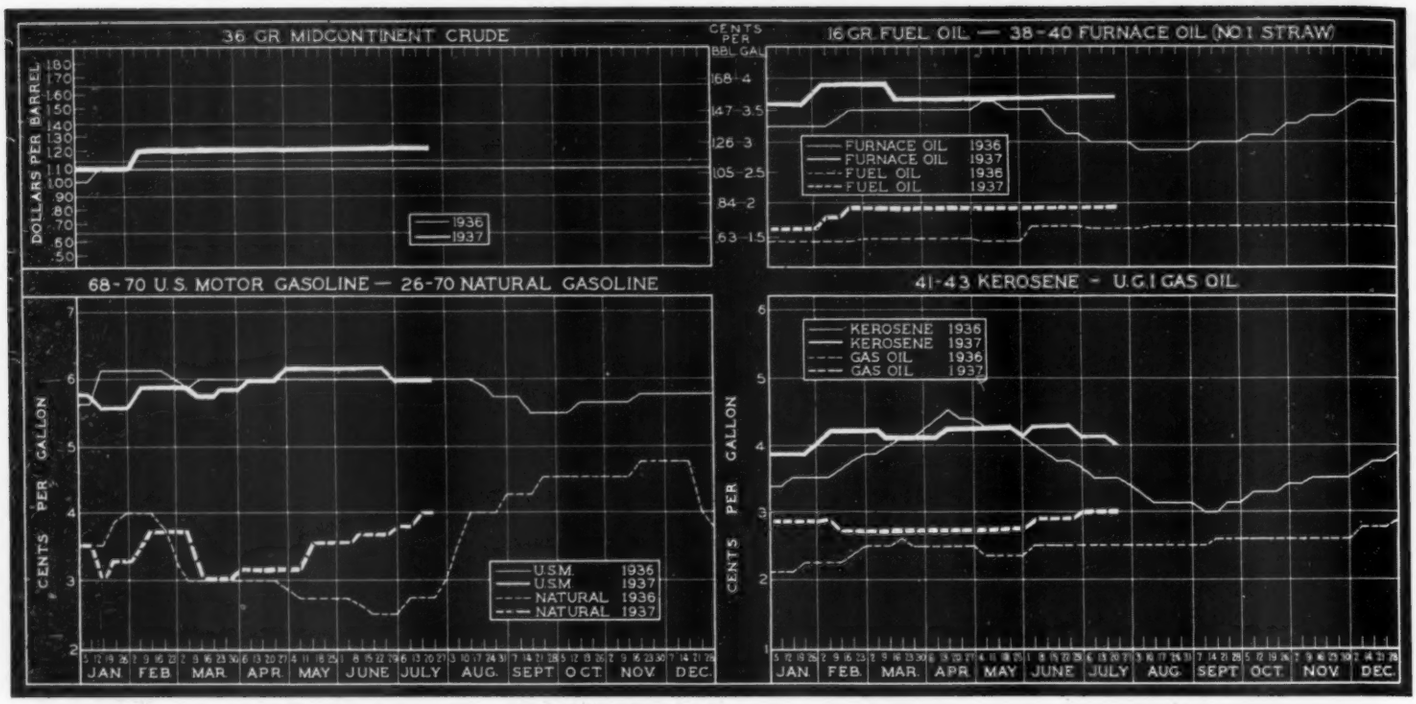
E. W. LOUNSBURY, veteran New York petroleum trader and tanker broker, has joined Walker Services, Inc., as vice president in charge of the oil and tank steamer division.

WILLIAM J. HEALEY and T. P. THOMPSON, JR., Bradford field producers, have been elected president and vice president, respectively, of the Bradford, Pa., hospital board of directors.

CLARENCE M. DAVISON, of the Standard Oil Company of New Jersey, was elected to the board of directors of the Pennsylvania Grade Crude Oil Association at the board's July meeting.

HARRY M. RUGG, automotive engineer of the Pennsylvania Grade Crude Oil Association, has completed a tour of the eastern industrial plants studying trends in diesel and automotive manufacture.

O. C. NEEDHAM, district superintendent of the Panhandle and North Texas districts for the Gulf Oil Corporation, Fort Worth, Tex., and "DOC" OLDHAM, purchasing agent for the Gulf in Houston, Tex., are in Mexico City, D. F., on vacation.



Representative Mid-Continent Quotations on Crude Oil and Refined Products, Basis Oklahoma (Group 3)

Gasoline Market Muddled in Group 3 and Heating Oils Rise in Interest

By D. H. STORMONT

A muddled gasoline market still prevailed in the Group 3 territory this week, and the naturals were doing what observers expected of them, which is say their strength was becoming more apparent daily. So it fell to the heating oils to find themselves close to the top in point of market interest.

No price changes of importance were recorded in the heating oils, but refiners reported demand exceedingly active. Jobbers who last year failed to build up adequate stocks for winter requirements and then were forced to pay for their shortsightedness last spring evidently do not intend to invite a repetition of the punishment. They are storing now while prices are at what the trade generally regards as the bottom. Brisk buying in the open market in the past week was said to have removed any overlarge inventories.

Disappointment Over Gasoline

Disappointment was manifested over the continued unsettled condition of the gasoline tankcar market, which began with the half-cent cut in tank-wagon prices last month. Hope had been entertained that the base tank-wagon prices, reduced in the first place by the Standard Oil Co. (Indiana), would be moved up again as the pricecutting which impelled its drastic action was corrected. But all the bad spots have not been removed. Some discouraged refiners confessed this week they virtually had abandoned hope of better prices.

All in the trade did not take this pessimistic view. There is general agreement that the 1937 gallonage will overshadow all previous records. It should be a year of excellent earnings, helping in some measure to make up for losses suffered by the oil industry during the depression. But at this moment, as a matter of fact, independent refiners in Oklahoma assert they barely are breaking even. Some market observers who have studied the situation carefully expressed confidence that the refining and marketing divisions would not throw away the opportunity for legitimate profit presented by this year's tremendous consumption of motor fuel. They declared that before the summer touring season had advanced much further weak spots in the tank-wagon and service station price structure at scattered points in the Middle West would be eradicated and that the tankcar market would respond promptly. The advance of a half-cent in tankcar prices in the East was looked upon as a helpful development.

While the trade in Group 3 is struggling with the problem of a dislocated market the demand for gasoline is reaching new heights. "We're oversold and we're having trouble buying to take care of our orders," said an executive of one large independent refinery. "I heard that a certain refiner had some third-grade material which he was selling at 4¾ cents. I got him on the phone. 'Ridiculous!' he said. 'I couldn't take an order at 5 cents.' Why the Group 3 refiner has to sell gasoline at the present low prices is beyond me."

May Face Problem

Another sales manager said: "We've been running our plants now for 80 days. Ordinarily we keep them going continuously 50 to 60 days. We may have to shut down any time. When we do I don't know what we're going to do for gasoline to fill orders."

It is upon experiences like these that the more optimistic refiners base their belief that higher tankcar prices are not far off. They say the old law of supply and demand is still working.

Natural gasoline showed no sign of weariness after climbing upward steadily since early in May. Output of Texas plants was being moved to the Gulf for export or coastwise shipment.

Kerosene was easier, along with the tractor fuels. Bright stocks were weak, and neutrals not much better. Wax was strong.

Refined Oil Market Barometer

Although gasoline consumption is high, tankcar prices in interior areas continue at unsatisfactory levels as a result of last month's reduction in tank-wagon prices. Hope of correction through eradication of bad spots in retail markets of the Middle West has not been given up. Heating oils gaining strength in Mid-Continent, but slightly easier in East. Lubricants weaker. Naturals holding their strength.

MID-CONTINENT. Gasoline demand vigorous, but prices fail to follow. Distillates active.

EAST COAST. Gasoline up as vacation season gets under way. Kerosene firm.

GULF COAST. General market strong and prices firm.

CALIFORNIA. Gasoline firm. Kerosene higher. Fuel oil and diesel strong.

PENNSYLVANIA. Lubricant prices off. Gasoline, kerosene, fuel oil strong. Wax up.

CHICAGO. Gasoline consumption high, but price structure unsatisfactory. Kerosene less active.

Advance in Tankcar and Tank-Wagon Gasoline Prices Generally Adopted

By H. STANLEY NORMAN

NEW YORK, July 20.—The sweeping advance in tankcar and tank-wagon gasoline prices along the eastern seaboard launched last week by Standard Oil Co. of New Jersey and its directly related subsidiaries has been generally adopted by other important marketing and refining companies. The advance of a half cent per gallon blanketed the eastern states from Louisiana to New England. In elevating prices in line with the latest gasoline market trend, Socony-Vacuum Oil Co.'s New England subsidiaries raised prices as much as a cent per gallon correcting a depressed condition around Boston, Mass., and Providence, R. I.

Although insufficient time had elapsed to disclose any possible reaction, it was reported that consumption is marching steadily ahead and that the margin of normal increase for this season of the year over 1936 is being continued without interruption. In view of the continued high tanker rates applying to movement north from the Gulf Coast and the strong gasoline market obtaining there, the latest advance in motor fuel prices is accepted as inevitable and thoroughly in accord with governing factors.

Shell Union Oil Corp., Gulf and Texas Co. have met the gasoline advance. Metropolitan New York, including the five boroughs of Manhattan, Queens, Bronx, Brooklyn, Staten Island and a part of Westchester County, was the only territory along the eastern seaboard unaffected by the most recent motor fuel price advance. The market in this particular territory had been running slightly ahead of most of the surrounding territory, including northern New Jersey and the omission of metropolitan New York was based on a levelling off process.

The retail price war which was threatened a week ago in Brooklyn has at least made no further inroads into the normal market and most sources report that conditions are gradually being corrected in the involved territory. Most stations in metropolitan New York were selling for 18 cents per gallon for house brand motor fuel. Prices were a cent to 2 cents per gallon higher in Westchester County.

Northern New Jersey, including the territory as far south as Trenton, appears to be involved in a retail flareup. Prices have skidded to a minimum of 12.9 cents per gallon for unbranded motor fuel including state and federal taxes. The major companies' gasoline is being marketed currently at 15 cents per gallon in the involved territory, also including state and federal taxes. The new tank-wagon price in Newark is 9 cents, exclusive of tax, to undivided dealers. Efforts are being made to adjust the retail structure in New Jersey in line with the new tankcar prices and observers reported late last week that some hope for success is justified. It was pointed out, however, that Newark and surrounding territory has been a sore spot in the retail marketing picture at frequent intervals for more than a year.

The respite from torrid temperatures prevailing over the first full week in July which favored New Yorkers for three days last week was of short duration. Typical North Atlantic seacoast temperatures returned Friday indicating another surge of motorists to mountain retreats in New England and up-state New York over the week-end. Drivers unable to take longer trips are contributing to record crowds at Long Island beaches, seeking relief for themselves and families. Demands being made by motorists on touring bureaus maintained by oil companies are considerably in excess of 1936 and the nature of inquiries indicates that vacationists are just now reaching the normal summer stride, and that generally speaking trips are of greater length this year than in 1936 and previous years. Considerable of the current heavy demand for gasoline in this area is attributed to vacations, week-end pleasure trips and to the natural quest for relief from oppressive temperatures.

Kerosene remains a strong item on the petroleum market list in this territory and is quoted most generally at 6.3 cents per gallon in tank cars. Some material is reported moving at 6⅛ cents per gallon, but it is of slight quantity and considered of little significance in the general market.

Domestic heating oil prices are generally unchanged. Reports are current, however, that some dealers are booking business for next winter at 6½ cents per gallon, which is from a half to 1 cent per gallon under what the majority are offering in new contracts. Observers are unable to determine whether the lower prices are being offered on a sound basis of delivery or whether the dealers engaging in the practice are attempting to outguess the market. The source from which distillate fuel oil can be purchased at a price sufficiently low to produce a profit at 6½ cents per gallon delivered is unknown to observers watching the fuel oil market in this area. Considerable interrefinery contract business on next winter's fuel oil production is being done currently. Some refiners are taking up all offerings feeling that their own production will be inadequate to supply requirements from their own customers. Existence of interrefinery business and reasonable activity in the distillate fuel market for this season of the year is keeping general tone of the domestic oil market firm.

Export purchasers were again active in the Gulf Coast gas oil market last week and nearly a half dozen cargoes of gasoline were sold. Inquiries for gas oil did not develop any definitely closed business, but traders anticipated that definite orders will be placed within a week or two for at least three cargoes. Quotations on export grade gas oil vary from 4 to 4¼ cents per gallon.

Two cargoes of 68-70 octane gasoline were sold on the Gulf Coast last week at 6.5 cents per gallon. One cargo was reported for coastwise movement and the other for export. Another cargo involved about 50,000 bbls. of 64-66, 375 e.p. gasoline and 25,000 bbls. of 61-63 material for export lifting in September. The top grade in this mixed cargo brought 6⅜ cents and the inferior material brought 6 1/16 cents per gallon. Still another cargo of 64-66 octane, 375 e.p. gasoline brought 6⅜ cents per gallon for loading early next month for the account of a European purchaser.

Kerosene remained strong on the Gulf Coast, but no cargo sales were reported in the open market. All grades of fuel oil were also unchanged, but industrial burning material and Bunker C are particularly strong.

The reductions ranging from a half to 1 cent per gallon on Pennsylvania grade lubricating oils two weeks ago produced a slight revival of interest among purchasers and several sizable sales were reported. Exporters are again showing interest in the Pennsylvania lubricating oil market and two or three of the sales reported last week were for European loading. Quotations have

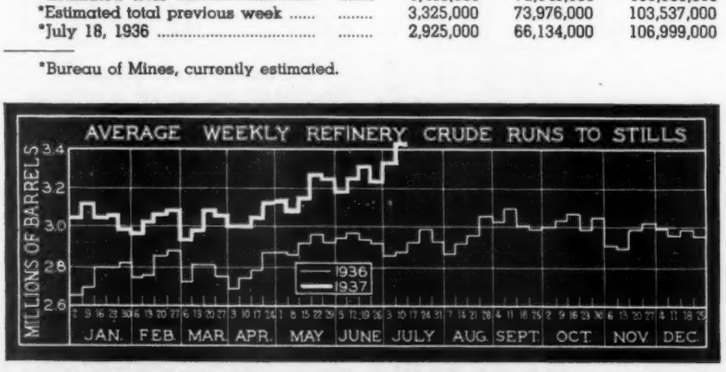
(Continued on Page 106)

A. P. I. Weekly Refinery Statistics

Week Ending July 17, 1937

	Capacity reporting (per cent)	Daily crude runs (bbls.)	Total gasoline stocks	Gas oil and fuel oil stocks
East Coast	100.0	594,000	18,231,000	10,261,000
Appalachian	88.4	109,000	2,893,000	828,000
Indiana, Illinois, Kentucky	92.4	473,000	12,576,000	6,208,000
Oklahoma, Kansas, Missouri	84.6	314,000	7,282,000	3,295,000
Inland Texas	56.6	151,000	1,852,000	1,708,000
Texas Gulf	95.5	720,000	8,788,000	8,339,000
Louisiana Gulf	96.3	135,000	1,784,000	2,459,000
North Louisiana and Arkansas	63.7	45,000	465,000	409,000
Rocky Mountains	69.7	52,000	1,664,000	779,000
California	90.9	532,000	13,091,000	68,159,000
Total reported	88.9	3,125,000	68,626,000	102,445,000
Estimated unreported	.....	290,000	3,920,000	2,640,000
*Estimated total	.....	3,415,000	72,546,000	105,085,000
*Estimated total previous week	.....	3,325,000	73,976,000	103,537,000
*July 18, 1936	.....	2,925,000	66,134,000	106,999,000

*Bureau of Mines, currently estimated.



Stocks of Crude Oil in the United States

(BUREAU OF MINES ESTIMATES)

Week ending July 3, 1937	308,744,000 barrels
Week ending June 26, 1937	307,679,000 barrels
Week ending July 4, 1936	310,445,000 barrels

RETAIL OIL MARKETS

Tank-wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of July 20, 1937

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wag.	Dir.	Inc. tax	tank-wag.
Chicago, Ill.	15.5	13.5	4.0	10.1
Decatur	15.5	14.0	4.0	10.1
Joliet	15.5	14.0	4.0	10.1
Peoria	15.5	14.0	4.0	10.1
Quincy	15 3	13 8	4 0	7.6
Davenport, Ia.	15.5	14.0	4.0	‡13.1
Des Moines	15.3	13.8	4.0	‡12 9
Mason City	15.7	14.2	4.0	‡13.3
Sioux City	15 5	14.0	4.0	‡13.1
Duluth, Minn.	17.3	15.8	5.0	10.9
Mankato	16.9	15.4	5.0	10.5
Twin Cities	16 9	15.4	5.0	10.5
Lacrosse, Wis.	16 9	15.4	5.0	10.5
Green Bay	17.2	15.7	5.0	8.6
Milwaukee	16 8	15.3	5.0	10.4
Detroit, Mich.	15.4	13.9	4.0	9 8
Grand Rapids	16 5	15.0	4.0	10 9
Saginaw	16.3	14.8	4.0	8.5
Evansville, Ind.	17.0	15.5	5.0	†10.6
Indianapolis	17.2	15.7	5.0	†9.6
South Bend	17.4	15.9	5.0	†9.6
Fargo, N. Dak.	16.9	15.4	4.0	11.5
Minot	16.1	16.6	4.0	12.7
Huron, S. Dak.	17.3	15.8	5.0	10.9
Kans. City, Mo.*	14.9	13.4	4.0	8.9
St. Louis*	15.2	13.7	4.0	9.8
St. Joseph*	14.9	11.4	4.0	6.9
Wichita, Kans.	14.4	12.9	4.0	7.5

*State tax 2 cents, 1-cent city tax and 1-cent federal tax. †Does not include 4-cent state tax. ‡Iowa kerosene prices include 3-cent state tax.

(Exclusive of state general sales taxes, except Indiana and South Dakota.)

Discounts to commercial consumers: On purchases per month off tank-wagon prices: 1,000 gallons or more, 1.5 cents off; minimum delivery 25 gallons.

Stanolex Fuel Oil in Chicago

Effective Dec. 7, 1936, f.o.b. Chicago tank-wagon prices: Range oil, 1-99 gallons, 8.8 cents; 100-149 gallons, 7.8 cents; 150 gallons and over, 7.3 cents. Stanolex No. 1, 1-99 gallons, 8.8 cents; 100-149 gallons, 7.8 cents; 150 gallons and over, 7.0 cents. Stanolex furnace oil, 1-149 gallons, 7.8 cents; 150 gallons and over, 7.0 cents. Stanolex A, 1-399 gallons, 5.75 cents; 400 gallons and over, 4.75 cents. Stanolex B, 1-799 gallons, 5.75 cents; 800 gallons and over, 4.75 cents.

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline			Kero.
	Tank wag. dlr.	Tank car con'r.	Inc. tax	tank-wag.
Atl'tic City, N. J.	13 5	12 0	4 0	8 5
Newark	13 5	12 0	4 0	8 5
Annapolis, Md.	15 6	14 1	5 0	9 5
Baltimore	15 0	13 5	5 0	9.0
Cumberland	17.4	14.9	5 0	10.0
Wash'g'n, D. C.*	13 0	11 5	3.0	9 5
Danville, Va.	18.2	15.7	6.0	12.9
Norfolk	17.0	14.5	6.0	11.5
Petersburg	17.3	14.8	6.0	11 7
Richmond	17 3	14 8	6.0	11 7
Roanoke	18 5	16 0	6.0	12 9
Charles'n, W. V.	17 8	15 3	6 0	12 6
Parkersburg	17.1	14 6	6 0	11 2
Wheeling	17 0	15 5	6 0	12 2
Charlotte, N. C.	19 4	16 9	7.0	12 6
Hickory	19 9	17.4	7 0	13 0
Mt. Airy	19.7	17 2	7.0	12.8
Raleigh	19.0	16.5	7.0	12.1
Salisbury	19 5	17.0	7.0	12.7
Charleston, S. C.	18 0	15 5	7.0	11.1
Columbia	19 0	16 5	7 0	12.1
Spartanburg	19.7	17.2	7 0	12 9

*Standard of N. J. has discontinued posting service-station prices at all above points except at Washington and Baltimore where station prices of 16.5 and 18.5 cents, respectively, are in effect.

Price basis to commercial consumers, effective March 8, 1937, in Maryland, District of Columbia, and in Arlington and Fairfax counties in Virginia; and March 12 in New Jersey: To contract accounts purchasing at least one full compartment at time by hose connection, on yearly purchases: From 2,500 to 100,000 gallons, consumer tank-wagon price at time and place of delivery; 100,000 gallons per year, consumer tankcar price plus .5 cent per gallon. Consumer tank-wagon price generally will be equivalent to dealer tank-wagon price less .5 cent per gallon.

Effective May 15, 1937, in North and South Carolina, West Virginia and Virginia (except Arlington and Fairfax counties): Commercial consumers taking deliveries of 50 gallons (W. Va., 100 gallons) or more at one time will be billed at posted consumer tank-wagon price. Accounts taking deliveries of less than 50 gallons (W. Va., 100 gallons) will be billed at 4 cents per gallon over posted consumer tank-wagon price. Generally the posted consumer tank-wagon price will be equivalent to the dealer price less .5 cent per gallon.

Discount for kerosene, 1 cent off tank-wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except no discount in New Jersey.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline			Kero.
	Tank wag.	Net dlr.	Inc. tax	tank-wag.
Atlanta, Ga.	22 0	19 0	7.0	*13.0
Augusta	21.0	18.0	7.0	*14.0
Macon	21.5	18.5	7.0	*14.5
Savannah	19.0	16.0	7.0	*12.0
Birm'ham, Ala.	19 5	16 5	8.0	12.0
Mobile	22.0	19.0	9.0	11.0
Montgomery	22.0	19.0	9.0	14.5
Jackson, Miss.	21.0	18.0	7.0	*13.0
Vicksburg	20.5	17.5	7.0	*13.0
Jacksonville, Fla.	20.5	17.5	8.0	11.0
Miami	20.5	17.5	8.0	†11.5
Pensacola	22 0	19.0	9 0	12.0
Tampa	19.0	16 0	8.0	10.5
Lexington, Ky.	20.0	17.0	6.0	11.0
Covington	19.5	16.5	6.0	11.0
Louisville	20.0	17.0	6.0	10.5
Paducah	20.0	17.0	6.0	8.0

Price basis to tank-wagon consumers: Effective January 4, 1937, 3 cents per gallon below tank-wagon price. Kerosene prices in all states subject to 2 cents discount except in Kentucky where prices are net.

*Includes 1-cent state tax. †Subject to 2-cent discount.

Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax; and 1 cent per gallon on kerosene. Mobile, Ala., has a city gasoline tax of 2 cents per gallon; Birmingham, Ala., has a city gasoline tax of 1 cent per gallon; Pensacola has a city gasoline tax of 1 cent.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline		Kero.
	Dealer	Inc. tax	tank-wag.
Denver, Colo.	17.5	5.0	11.5
Grand Junction	20.0	5.0	15.0
Pueblo	16.0	5.0	10.5
Casper, Wyo.	18.0	5.0	11.5
Cheyenne	18.0	5.0	13.0
Butte, Mont.	19.5	6 0	15.5
Billings	20.0	6.0	15.5
Helena	21.5	6.0	15.5
Great Falls	21.5	6.0	15.5
Salt Lake, Utah	19.5	5 0	16.0
Twin Falls, Ida.	21.5	6.0	18.0
Boise	21.5	6.0	18.0
Albuquerque, N. M.	17.5	6.5	12.0

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline			Kero.
	Tank wag. con'r.	Di-vided dlr.	Inc. tax	tank-wag.
Ohio points	17.0	16.0	5.0	*13.5

*Includes state tax of 1 cent.

Divided dealer price is also price to authorized agents, exclusive of .5 cent rental. Tank-wagon price is price to commercial consumers in deliveries of 25 gallons or more; less than 25 gallons gets service-station price.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank-wag.
San Francisco	17 5	18 5	4.0	11.5
Los Angeles	17 0	18.0	4.0	9.0
Fresno, Calif.	18 5	19 5	4 0	12.0
Phoenix, Ariz.	21 0	22 0	6 0	‡16.0
Reno, Nev.	20.0	21.0	5.0	13.0
Portland, Ore.	20 0	21.0	6 0	13.5
Seattle, Wash.	20 0	21 0	6 0	13.5
Spokane	23 0	24 0	6 0	16 5
Tacoma	20.0	21.0	6 0	13.5

‡Includes 5-cent state tax.

Discounts to dealers: On gasoline, off tank-wagon price, to 100 per cent dealers, 3 cents; to split dealers, 2 cents. To commercial consumers: on tank-wagon price: on single deliveries of 40 gallons and over, advance quantity discount extended at time of delivery, 3 cents. Service station schedule applies on single deliveries less than 40 gallons. On kerosene in tankcar, transport truck and trailer delivery, 3 cents off tank-wagon price; plant deliveries to jobbers, 2.5 cents below tank-wagon.

New York and New England

SOCONY-VACUUM OIL CO., INC.

	Gasoline			Kero.
	Tank wag. dlr.	Tank car con'r.	Inc. tax	tank-wag.
Albany, N. Y.	15.0	13.5	5.0	9.0
*Met. N. Y.:				
Manh't'n, Br'nx	15.0	13.5	5.0	9.0
Staten Island	15.0	13.5	5.0	9.0
Q'ns & Brklyn	15.0	13.5	5.0	9.0
Buffalo	15.3	13 67	5.0	8.5
Rochester	15.3	13.74	5.0	8.5
Syracuse	15 3	13.7	5.0	9.0
Boston, Mass.	12.8	12.5	5.0	8.5
Portland, Me.	15 8	13.5	5.0	8.75
Manch'ter, N. H.	16 3	14.0	5.0	9.5
Burlington, Vt.	15 9	13.9	5.0	9.75

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Price basis to undivided dealer: Posted dealer tank-wagon price less .5 cent. Price basis to commercial consumer: Effective Nov. 15, 1936, monthly purchases of 25,000 gallons and over, consumer tankcar prices at delivery point plus .5 cent per gallon; monthly purchases of 5,000 to 25,000 gallons, undivided dealer price at delivery point: Monthly purchases under 5,000 gallons, pay divided dealer tank-wagon price at delivery point.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline		Kero.
	Tank wag.	Inc. tax	tank-wag
Omaha	17.5	16.4	6.0	10.4
McCook	18.0	17.1	6.0	10.0
Norfolk	18.3	16.8	6.0	10.8
North Platte	18.7	17.2	6.0	11.2
Scotts Bluff	19.4	17.9	6.0	10.9

Discounts to commercial consumers for tank-wagon deliveries covered only by standard commercial consumers contract, effective Jan. 1, 1935.

Oklahoma and Arkansas

CONTINENTAL OIL CO.

	Gasoline		Kero.
	Dealer	Inc. tax	tank-wag.
Muskogee, Ok.	15.0	5.0	7.0
Oklahoma City	14.0	5.0	8.0
Tulsa	14.0	5.0	7.0
Ft. Smith, Ark.	15 5	5 0	10.0
Little Rock	18 0	7 5	9.5
Texarkana	15.0	5.0	9.0

Texas

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank-wag.
Dallas, Tex.	14.0	18 0	5.0	8.0
Fort Worth	14.0	18.0	5.0	8.0
Houston	14.5	18.5	5.0	8.(
San Antonio	14.5	18.5	5.0	8.0

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline			Kero.
	Tank wag. dlr.	Tank car con'r.	Inc. tax	tank-wag.
N. Orleans, La.	20 5	18 0	*10.0	†13 0
Baton Rouge	18 5	16.0	8.0	12.0
Alexandria	19.0	16 5	8 0	12.0
Lafayette	19 5	17 0	8 0	13.0
Lake Charles	19 5	17.0	8.0	12.5
Shreveport	18.0	15.5	8.0	9.5
Knoxville, Tenn.	21.5	19.0	8.0	14 0
Memphis	19 5	17 0	8 0	12.0
Chattanooga	21 0	18 5	8 0	13.5
Nashville	20 5	18 0	8 0	11.0
Bristol	20 25	19.0	8 0	14 5

*Includes 2-cent parish tax. †Includes 1-cent parish tax and 1-cent state tax.

Standard of La. has transferred all stations to dealers except in New Orleans and Baton Rouge where station prices are 24 and 22 cents per gallon, respectively.

Price basis to commercial consumers: Effective May 15, 1937, deliveries of 50 gallons or more in one delivery takes posted consumer tank-wagon price. Accounts taking deliveries of less than 50 gallons at one time pay posted consumer tank-wagon price plus 4 cents per gallon. Generally, the posted consumer tank-wagon price will be equivalent to the dealer price less .5 cent per gallon.

Louisiana kerosene prices include 1-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wag. dlr.	Tank car con'r.	Inc. tax	tank-wag.
Philadelphia, Pa.	14.0	12.5	5.0	10.5
Pittsburgh	15.5	13.5	5.0	11.0
Allentown	14.5	13.25	5.0	11.0
Erie	14.5	13.0	5.0	10.0
Scranton	14.5	13.25	5.0	11.0
Altoona	15.5	13.5	5 0	11 0
Dover, Del.	14.0	....	5.0	11.0
Wilmington	13.5	....	5.0	11.0
Springf'ld, Mass.	14.8	....	4.0	9.0
Worcester	13.8	....	4.0	9.0
Hartford, Conn.	14.6	....	4.0	9.0
New Haven	14.0	....	4.0	9.0
Providence, R. I.	12.0	....	3.0	8.25

Price basis to undivided dealers, dealer tank-wagon price less .5 cent per gallon. Price basis to commercial consumers in Pennsylvania and Delaware, effective March 11, 1937: Consumers under contract using 100,000 gallons or more per year full compartment hose deliveries, tankcar plus .5 cent. Consumers under contract using less than 100,000 gallons per year compartment hose deliveries, undivided dealer price. Consumers under contract less than full compartment delivery, consumers not under contract less than full compartment delivery, and consumers not under contract full compartment delivery, divided dealer price. Less than 25 gallons, tank-wagon delivery, 4 cents per gallon above undivided dealer price.

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank-wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b Chicago. Each price subject to discount of 1 cent per gallon for 150 gallon lots if covered by contract.

Canada*

3 Star Imperial Gasoline
IMPERIAL OIL, LTD.

	Tank-wag.	Inc. tax	Kero. tank-wag.
Halifax, N.S.	24.0	8.0	18.5
St. John, N.B.	24.0	8.0	18.5
Montreal, Que.	21.0	6.0	17.5
Toronto, Ont.	22.0	6.0	17.0
Hamilton, Ont.	22.0	6.0	17.0
Winnipeg, Man.	28.2	7.0	20.7
Brandon, Man.	29.8	7.0	22.3
Regina, Sask.	29.5	7.0	22.0
Saskatoon, Sask.	32.3	7.0	24.8
Edmonton, Alta.	30.5	7.0	24.2
Calgary, Alta.	28.0	7.0	21.5
Vancouver, B.C.	23.0	7.0	23.0

*Imperial gallon used in Canada.

Divided dealers pay tank-wagon price. Discount to undivided dealers, 1 cent below tank-wagon price. In maritime provinces both divided and undivided dealers pay tank-wagon price.

Retail Price Changes

Standard Oil Co. of New Jersey July 6 advanced tank-wagon kerosene .5 cent in Baltimore and Washington, and reduced tank-wagon kerosene .5 cent in Annapolis; July 7 advanced tank-wagon kerosene .5 cent in Newark and Atlantic City.

Continental Oil Co. July 13 advanced dealer gasoline .5 cent in Little Rock and Fort Smith; July 14 reduced dealer gasoline 1 cent in Oklahoma City.

Standard Oil Co. of Louisiana April 29 reduced tank-wagon kerosene 3 cents and July 2 advanced tank-wagon kerosene 2 cents in New Orleans; March 23 increased tank-wagon kerosene .5 cent in Lafayette.

J. W. Boyle, a director of Mosul Oil Fields, Ltd., London, is on a business trip in the United States.

Edward Pickett recently was appointed chief scout of the San Joaquin Valley division of the Union Oil Co.

PRICES OF REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of July 20, 1937

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:		
62 oct. and below (3d gr.)	.05	.05¼
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06¼
60-62 400 grades:		
62 oct. and below (3d gr.)	.05	.05¼
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06¼
64-66 375	.05½	.05⅝
68-70 360	.05⅛	.05⅝

NORTH TEXAS—

U. S. Motor grades:		
62 octane and below	.05	.05¼
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06¼
60-62 400	.05	.05¼
64-66 375	.05	.05¼

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U. S. Motor grades:		
62 octane and below		.05½
63-67 octane	.05¾	.06
68-70 octane (regular)		.06½

ARKANSAS (Ark., N. La., Miss. del.)—

U. S. Motor grades:		
62 octane and below		.05½
63-67 octane	.06	.06½
68-70 octane (regular)		.06½

CHICAGO (Based on Group 3)—

U. S. Motor grades:		
62 octane and below	.05	.05¼
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06¼
60-62 400 grades:		
62 octane and below	.05	.05¼
63-67 octane	.05⅜	.05⅝
68-70 octane (regular)	.06	.06¼
64-66 375	.05	.05¼
68-70 360	.05½	.05⅝

PENNSYLVANIA (Inland refineries)—

58-60 U. S. Motor:		
Below 60 octane		.06
60-64.9 octane		.07⅜
65-70 octane		.07½
64-66 375		.06½
68-70 350		.06¼

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.07½	.08½
58-60 400, 65 oct. and higher	.08¼	.09¼

EAST COAST (domestic)—

U. S. Motor below 60 octane:		
*New York (Bayonne)		.07¼
Baltimore		.07¼
U. S. Motor, 60-64.9 octane:		
*New York (Bayonne)	.07½	.07¾
Philadelphia	.07½	.07¾
Boston		.07¾
Baltimore	.07½	.07¾
Charleston, S. C.		.07¾
U. S. Motor, 65 and above:		
*New York (Bayonne)	.08	.08½
Philadelphia	.07¾	.08¼
Boston	.08	.08½
Baltimore		.08
Charleston, S. C.		.08

*All grades of gasoline one-eighth to one-fourth cent less for barge shipments. New York harbor prices are for New York and New England delivery. Prices for New Jersey delivery one-fourth cent lower.

GULF COAST (domestic)—

U. S. Motor grades:		
Below 60 octane	.06	.06½
60-64.9	.06½	.06⅝
65 octane and higher		.06½

Naphtha

PENNSYLVANIA (Inland refineries)—

50-52 450 (blending)	.05¾	.05⅞
52-54 450 (blending)	.05¾	.05⅞
54-56 450 (blending)	.05⅞	.06

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70		.04
Grade 18-55	.04¾	.04⅞

NORTH TEXAS—

Grade 26-70		.04½
Grade 18-55	.04⅞	.05

CALIFORNIA—

75-85 375-390	.06¾	.07½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

Grade 26-70	.04	.04⅛

Tractor Fuel

OKLAHOMA (Group 3)—

40-42 gr., 315-325 i.b.p., 110 flash, 540-550 e.p.	.04	.04¼
41-43 gr., 300-350 i.b.p., 110-125 flash, 500-520 e.p.	.04⅜	.04⅝
46-48 gr., 210-230 i.b.p., 480 max. e.p.	.04¾	.04⅞

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.04	.04¼
42-44	.04¼	.04½

NORTH TEXAS—

41-43	.04	.04¼

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

41-43	.04½	.04⅝

ARKANSAS (Ark., N. La., Miss. del.)—

41-43		.04¾

PENNSYLVANIA (Inland refineries)—

45		.05
46		.05⅛
47		.05¼

CHICAGO (Based on Group 3)—

41-43	.04⅛	.04⅜
42-44	.04⅜	.04½

CALIFORNIA (Pac. Coast market)—

38-43 high burning test	.04¼	.05½

NEW YORK (Bayonne, N. J.)—

41-43	.05½	.05¾

***GULF COAST (domestic)—**

41-43	.04⅞	.05

*Barge price one-eighth cent lower.

Furnace Oil

OKLAHOMA (Group 3)—

No. 1 prime white, 38-42	.03⅞	.04
No. 1 straw, 38-40	.03⅝	.03¾
No. 2 straw, 32-36	.03½	.03⅝
No. 2 dark, 32-36	.03¼	.03½
No. 3, zero to 15, 28-32	.03⅛	.03⅜
No. 3, 15 and above, 28-32	.02⅝	.02¾

NORTH TEXAS—

No. 1 prime white, 38-42		.04
No. 1 straw, 38-40	.03⅝	.03¾

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

No. 2, 32-36	.03⅜	.03⅝

ARKANSAS (Ark., N. La., Miss. del.)—

No. 2, 32-36		.03⅝

CHICAGO (based on Group 3)—

No. 1 prime white, 38-40	.03⅞	.04
No. 1 straw, 38-40	.03⅝	.03¾
No. 2 straw, 32-36	.03½	.03⅝
No. 2 dark, 32-36	.03¼	.03½
No. 3, zero to 15, 28-32	.03⅛	.03⅜
No. 3, 15 and above, 28-32	.02⅝	.02¾

NEW YORK (Bayonne, N. J.)—

*No. 1		.05¾
*No. 2	.05¾	.05⅞
*No. 4	.05⅛	.05⅜

*Barge deliveries one-eighth to one-fourth cent under above, tankcar price.

Gas Oil and Fuel Oil

(Gas oil per gal.; fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.03	.03⅛
No. 4, low cold test, 24-28	1.05	1.12½
No. 4, 15 and above, 24-28	.90	.95
No. 5, low cold test, 18-22	.85	.90
Below 18 fuel oil, industrial	.80	.85

NORTH TEXAS—

U.G.I. gas oil	.03	.03⅛
No. 4, low cold test, 24-28	1.05	1.12½
No. 5, low cold test, 18-22	.85	.90
Below 18 fuel oil, industrial	.80	.85

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

10-14 fuel oil, industrial	.80	.85

CHICAGO (Based on Group 3)—

U.G.I. gas oil	.02⅞	.03
No. 4, low cold test, 24-28	1.05	1.12½
No. 4, 15 and above, 24-28	.90	.95
No. 5, low cold test, 18-22	.85	.90
No. 6, low cold test, 10-16	.80	.85

PENNSYLVANIA (Inland refineries)—

36-40	.04⅝	.04½

CALIFORNIA—

Los Angeles:		
30-34 gas oil, per bbl.	1.15	1.35
24 plus diesel, per bbl.	1.17	1.35
24 plus diesel (bunkers)	1.50	1.65
12-16 (bunkers at tidewater)	1.05	1.20
10-16 (cargo lots)	.95	1.10
12-17 (tankcars)	1.00	1.15
10-17 (high sulfur)	.60	.90
San Joaquin Valley:		
10-18 (tankcars)	.80	1.00
24 plus diesel, per bbl.	1.45	1.65
San Francisco:		
27 plus diesel		1.65
24 plus diesel (bunkers)		1.70
10-16 (bunkers)		1.15

GULF COAST—

28-30 gas oil	.04⅛	.04¼
28-30 diesel (bunkers)		1.90
Bunkers (bulk cargoes)		.95
Bunker C (bunkers)		1.05

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil		.04¾
28-30 diesel (lighterage 6¼c per bbl.)		2.20
28-30 diesel (tankcars)		.05
Bunker C (to ocean-going ships in N. Y. harbor)	1.35	1.50
Industrial fuel (tankcars)		.04½

Lighterage charge 5c bbl. additional.

Bright and Steam Refined

OKLAHOMA (Group 3)—

Bright Stocks:		
190-200 D, 15-25		.22
150-160 D, 0-10		.19
150-160 D, 15-25		.18½
150-160 E, 15-25		.18
100-110 D, 0-10		.17
Steam refined:		
631 green (treated)		.16
600 dark green (untreated)		.05

PENNSYLVANIA—

Bright Stocks (Pennsylvania Grade No. 8 color, 145-50 at 210, 540-550 flash):		
10 pour test	.24	.24½
15 pour test	.23	.23½
20 pour test	.22	.22½
25 pour test	.21	.21½
Steam refined:		
600	.14	.14½
650	.16½	.17
600 Pennsylvania flash	.17½	.18
630 flash	.21½	.22
600 Warren E filtered	.17½	.18

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

OKLAHOMA (Group 3)—

Zero to 10 Cold Test:		
150-3		.09
180-3		.10
180-4		.09½
200-3		.10½
200-4		.10
250-3		.11½
250-4		.11
280-3		.12½
280-4		.12
300-3½		.13
400-3½		.14
100-2½ paraffin oil		.05¾
15-20 Cold Test:		
200-3		.10
200-4		.09½
250-3		.11
250-4		.10½
280-3		.12
280-4		.11½

GULF COAST—

Pale Oils:		
200-3	.07	.07¼
300-3	.07½	.07¾
500-3½	.08½	.08¾
750-3½	.08⅝	.09¼
1,200-3½	.09½	.09¾
1,500-4	.09¾	.10
Red Oils:		
200-5-6	.07¼	.07½
300-5-6	.07¼	.07½
500-5-6	.08	.08½
750	.08¾	.09
1,200-5-6	.09¼	.09½

CALIFORNIA (moving to dom. market)

Pale Oils:		
100-2½-3	.07	.08
200-2½-3	.07	.08
300-2½-3	.07	.08
400-3-4	.09	.11
540-3-4	.09	.11
550-3-4	.09	.11
600-3-4	.09	.11
Red Oils:		
200-4-5	.07	.08
300-5-6	.07	.08
350-5-6	.10½	.11½
400-5-6	.10½	.11½
450-5-6	.10½	.11½
500-5-6	.10½	.11½
600-5-6½	.10½	.11½
700-6½ plus	.10½	.11½
750-6½ plus	.10½	.11½
900-6½ plus	.10½	.11½

PENNSYLVANIA—

150 vis. at 750° F. color, 400-405 flash:		
Zero pour test	.22½	.23
10 pour test	.21½	.22
15 pour test	.21	.21½
25 pour test	.20	.20½
180 vis. at 70° F., 3 color:		
25 pour test	.23	.23½
200 vis. at 70° F., 3 color:		
Zero pour test	.27	.27½
10 pour test	.26	.26½
15 pour test	.25½	.26
25 pour test	.24½	.25

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale		.03

PENNSYLVANIA (Inland refinery)—

122-124 (a.m.p.) w.c. scale	.0295	.0300
124-126 (a.m.p.) w.c. scale	.0300	.0305

NEW YORK—

Wax in bags fully refined:		
122-125 (a.m.p.) wax		.0445
125-127 (a.m.p.) wax		.0455
128-130 (a.m.p.) wax		.0480
130-132 (a.m.p.) wax		.0505
133-135 (a.m.p.) wax		.0535
135-137 (a.m.p.) wax		.0560
124-126 (a.m.p.) w.s.	.0295	.0300
124-126 (a.m.p.) y.s.	.0265	.0280
Petrolatum in barrels, carload lots:		
Dark green		.01⅞
Amber	.02⅞	.03
Extra amber	.03	.03⅛
Lily white	.06⅝	.06¾
Snow white	.07¾	.07⅞
Cream	.05⅝	.05¾

Export Prices

GASOLINE

GULF COAST—

U. S. Motor		.06
60-62 400	.06	.06⅛
61-63 390	.06⅛	.06¼
64-66 375		.06⅜

LOS ANGELES—

U. S. Motor grades:		
53-55 octane		.04¾
55-65 octane	.04¾	.05
65-67 octane		.05
67-69 octane		.05¼
Above 69 octane	.05½	.06

KEROSENE

GULF COAST—

41-43 prime white	.04⅞	.05
41-43 water white		.04⅞
44 water white	.05	.05⅛

LOS ANGELES—

41-43 water white	.04½	.05

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.a.s. in bbls.)—

Cylinder Stocks:		
600 Warren E	.26½	.27
600 S.R. unfiltered	.24	.24½
630 S.R. unfiltered	.25½	.26
600 flash, S.R.	.26½	.27
630 flash, S.R.	.31½	.32
Bright Stocks:		
8 color	.32	.32½
6½ plus color in dilution	.31½	.32

NEUTRAL OIL

200-3 color	.34	.34½
150-3 color	.29½	.30

PARAFFIN WAX

NEW YORK (prices per pound)—

123-126 a.m.p.		.04125
125-127 a.m.p.		.0425
128-130 a.m.p.		.0450
133-135 a.m.p.		.0525
135-137 a.m.p.		.0550
Crude scale:		
124-126 w.s.	.0295	.0300
124-126 y.s.	.0265	.0280

CRUDE OIL PRICES

Oklahoma, Kansas, North Central and East Central Texas

(January 28, 1937)

East Texas (May 22, 1937)*	$1.35
Van, Tex.†	1.10
Camp Hill, Tex.	1.27
Cass County, Tex.‡	1.25
Talco	.73
Altus and Tipton, Okla.§	1.20
Other fields (see gravity table).	

*All companies. †Humble Oil & Refining Co.; Pure Oil Co. ‡Texas Co. §Gulf Oil Co. Talco by Humble Oil & Refining Co.

West Texas

See gravity table.

Pecos County*	.91
Pecos shallow†	.81

*Shell Petroleum Co., Gulf Pipe Line Co., and Humble Oil & Refining Co. †Shell Petroleum Corp.

Gulf Coast

(January 28, 1937)

Choctaw and Darrow, La.	See note below
Clay Creek, Tex.	$1.00
Garden Island, La.	1.37
Cleveland, Tex.	1.27
Hardin, Tex.	1.15
Lafitte, La.	1.24
Livingston, Tex.	1.27
Heyser, light (Nov. 1, 1936)	1.15
Heyser, heavy (Nov. 1, 1936)	.90
Placedo (Nov. 1, 1936)	.90
Welsh, La.	.98
Tepetate (La.) (Jan. 4, 1937)	1.12

Greta, Refugio, O'Connor, McFadden, Saxet, Segno, Taft, Tomoconnor and Plymouth take same gravity prices as Gulf Coast, Duval, Jim Hogg, Webb and Zapata counties, Texas, and Heyser and Placedo fields take Mirando gravity prices. Jennings, La., 5 cents lower than Gulf Coast prices on each degree. Segno, Texas, takes Gulf Refining Co.'s Gulf Coast prices. Choctaw and Darrow, Louisiana, posted for first time by Standard Oil Co. of Louisiana, start below 21 degrees at 90 cents, with 3-cent differential up to 25 gravity, then 2-cent differential up to 40 and above, $1.36.

Rocky Mountain States

(Effective January 28, 1937)

Iles, Colo., light*	$1.18
Iles, Colo., heavy*	1.12
Greybull, Wyo.*	1.30
Torchlight, Wyo.*	1.30
Grass Creek, Wyo., light.*†	1.30
Grass Creek, Wyo., heavy (Nov. 4, 1936)*†	.62
Hamilton Dome, Wyo. (Nov. 4, 1936)*	.57
Elk Basin, Wyo., light*†	1.30
Frannie, Wyo., heavy*	.62
Frannie, Wyo., light	.82
Hogback, N. Mex.*	1.33
Pondera, Mont. (Jan. 26, 1936)*	1.05
Salt Creek, Dutton Creek and Midway, Wyo., take Stanolind's Oklahoma prices on a gravity basis.	
Big Muddy, Wyo.†	1.23
Rock Creek, Wyo.†	1.20½
Lea County, N. M. (see West Texas gravity table).	
Artesia, N. Mex.	.90
Maljamar, N. Mex.	.90
Canon City and Florence, Colo.	1.10
Florence, Colo.	.98
Lance Creek, Wyo.	.97
Sunburst, Mont. (June 5, 1936)	1.20
Cat Creek, Mont.	1.40
Cut Bank, Mont.	1.35

*Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co. Cut Bank by Toronto Pipe Line Co.

Middle Western States

OHIO OIL CO.
(Effective January 28, 1937)

Lima	1.25
Illinois	1.35
Princeton, Ind.	1.35
Midland, Mich.	1.42
West Branch, Mich. (July 1, 1937)	1.21
Buckeye (March 16, 1937)	1.39½
Arenac, Mich. (July 1, 1937)	1.21
Muskegon, Mich.	1.00
Eastern Kentucky:	
Big Sandy River	1.42
Kentucky River	1.50
Western Kentucky	1.40

Midland, Mich., price posted by Simrall Corp. and Pure Oil Co. includes Greendale, Porter, Beaverton, Crystal and equal grades. West Branch and Arenac by Simrall Corp. Eastern Kentucky crude purchased by Ashland Refining Co., Ashland, Ky. Buckeye posted by Simrall Corp. and Pure Oil Co.

Southwest Texas

(January 28, 1937)

Pettus	1.37
Salt Flat, Darst Creek, Hilbig, Carpoli Clark, Zoboroski	1.09
Luling	1.00
Lytton Springs	1.12

Saxet and Taft take same gravity table as Gulf Coast.

North Louisiana and Arkansas

Smackover, all grades	$ .90
Tullos and Urania	1.02
El Dorado East field	.90
Union County, Ark.	.90
Ouachita County, Ark.	.90

Eastern States

TIDE WATER PIPE LINE CO.
(Effective June 7, 1937)

Bradford, Pa.	$2.82
Allegany, N. Y.	2.82

SOUTH PENN OIL CO.
(Effective June 7, 1937)

Pennsylvania Grade Oil in National Transit Lines (Bradford field)	2.82
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.57
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.52
Pennsylvania Grade Oil in Buckeye Pipe Line lines	2.37
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Jan. 29, 1937)	1.42

PENNZOIL CO.
(Effective June 7, 1937)

Pennsylvania Grade Oil in National Transit Lines:	
Group A	2.82
Includes Cochran, Franklin, Hamilton and Doolittle districts.	
Group B	2.81
Includes Tidioute district.	
Group C	2.80
Includes Turkey and Tidioute districts.	
Group D	2.79
Includes Bear Creek and Porkey districts.	
Group E	2.76
Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kenerdell, Emlenton, Tiona, Lacey and Kinzua districts.	

Price depends on lengths of pipe line haul to plant at Oil City.

PURE OIL CO.
(Effective June 7, 1937)

Cabin Creek, W. Va.	2.52
Bradford Hollow, W. Va.	2.52
Kelly Creek, W. Va.	2.52

Canada

Ontario (Sept. 9, 1933)*	
Petrolia	$2.10
Oil Springs	2.17
Turner Valley, Alberta province (Dec. 16, 1936):†	
Clear naphtha	$2.60
Discolored naphtha, 65 gravity and higher	2.38
Discolored naphtha and crude oil, 40-40.9 gravity	1.88
Increasing 3 cents for each degree of gravity with top price for 64-64.9 gravity	2.37

These prices delivered field tankage.
*Imperial Oil, Ltd.
†Imperial Oil, Ltd., and Regal Oil & Refining Co. On crude oil alone British American Oil Co. posted above prices on December 9, 1936.

Mexico

Panuco*	$1.34

*In U. S. currency, f.o.b. ship, based on April spot market transactions.

Crude Oil Price Changes

Prices for Samfordyce, Tex., crude were raised 6 cents last week by the Valley Pipe Line Co. of McAllen, Tex. The company is the sole carrier of Samfordyce crude, operating a line from the field, down the Rio Grande River Valley to Port Isabel. New price for the crude is 96 cents per barrel, highest price ever paid for Samfordyce crude. The company is increasing storage facilities at Port Isabel.

New York Market

(Continued from Page 103)

not rebounded, but the revival of business and interest are sufficient to halt any further decline for the present.

Revival of interest among the exporters both in Pennsylvania lubricating stock and in Gulf Coast gasoline and gas oil probably is indirectly connected with a slightly weaker tanker market. Boats of foreign registry are available at figures slightly under previous quotations in sympathy with easier conditions among American registered vessels. Several long-term charters have been closed recently on foreign registered boats at a little more than $2 per barrel for trans-Atlantic service.

Boats for single trip service to meet constantly arising emergencies in water transportation are still difficult to find. Boat owners are willing to remain idle a few days in preference to possibly missing an opportunity to charter for periods ranging from a year to three years. Most of the chartered vessels are being continued in service by companies which have been using them for the past several months. Out of five vessels reported chartered for trans-Atlantic service last week in New York, four of the contracts were extensions for three years of the expiring arrangements.

British American Sales

TORONTO, Ontario.—British American Oil Co. has announced that for the first five months of 1937 the percentage of increase in the company's gasoline sales was greater than the increase in general consumption.

Crude Prices by Gravities

	Oklahoma-Kansas	Oklahoma-Kansas	North and Central Texas	East Central Texas (Mexia district)	North Louisiana-Arkansas	Gray County, Texas	Hutchinson-Carson counties, Texas	Rodessa, Louisiana-Texas and Panola County, Texas	Conroe, Tomball, Raccoon Bend, Deep, Satsuma	Gulf Coast	Gulf Coast	Lea County, N. Mex. West Texas except Pecos County,	Mirando district, Texas	Marion County, Texas	Refugio, Greta, Saxet, Taft, Texas	Anahuac, Flour Bluff, Dickson, Turtle Bay	White Castle, Louisiana	Iowa, Louisiana	Cayuga, Texas
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bel. 18	....	....	....	....	....	....	....	....	....	$.90	....	....	....	....	....	....	....	$.90	....
18-18.9	....	....	....	....	....	....	....	....	....	.92	....	....	....	....	....	....	....	.92	....
19-19.9	....	....	....	....	....	....	....	....	....	.94	....	....	....	....	....	....	$.94	.94	....
20-20.9	....	....	....	....	....	....	....	....	....	.96	$.95	....	$.96	....	$1.01	....	.96	.96	....
21-21.9	....	....	....	....	....	....	....	....	....	.98	.98	....	.98	....	1.03	....	.98	.98	....
22-22.9	....	....	....	....	....	....	....	....	....	1.01	1.01	....	1.00	....	1.05	....	1.01	1.01	....
23-23.9	....	....	....	....	....	....	....	....	....	1.04	1.04	....	1.02	....	1.07	....	1.04	1.04	....
24-24.9	....	....	....	....	....	....	....	....	....	1.07	1.07	....	1.04	....	1.09	....	1.07	1.07	....
Bel. 25	....	$.98	....	....	$.90	....	....	$.93	....	....	....	....	....	$.90	....	....	....	....	$.88
25-25.9	....	1.00	....	....	.92	....	....	.95	....	1.10	1.10	$.78	1.06	.92	1.11	....	1.10	1.10	.90
26-26.9	....	1.02	....	....	.94	....	....	.97	....	1.13	1.13	.80	1.08	.94	1.13	....	1.13	1.13	.92
27-27.9	....	1.04	....	....	.96	....	....	.99	....	1.15	1.15	.82	1.10	.96	1.15	....	1.15	1.15	.94
28-28.9	....	1.06	....	....	.98	....	....	1.01	....	1.17	1.17	.84	1.12	.98	1.17	....	1.17	1.17	.96
Bel. 29	$1.06	....	$.96	$1.03	....	....	....	....	$1.20	....	....	....	....	....	....	....	....	....	....
29-29.9	1.08	1.08	.98	1.05	1.00	....	....	1.03	1.22	1.19	1.19	.86	1.14	1.00	1.19	....	1.19	1.19	.98
30-30.9	1.10	1.10	1.00	1.07	1.02	....	....	1.05	1.24	1.21	1.21	.88	1.16	1.02	1.21	$1.16	1.21	1.21	1.00
31-31.9	1.12	1.12	1.02	1.09	1.04	....	....	1.07	1.26	1.23	1.23	.90	1.18	1.04	1.23	1.18	1.23	1.23	1.02
32-32.9	1.14	1.14	1.04	1.11	1.06	....	....	1.09	1.28	1.25	1.25	.92	1.20	1.06	1.25	1.20	1.25	1.25	1.04
33-33.9	1.16	1.16	1.06	1.13	1.08	....	....	1.11	1.30	1.27	1.27	.94	1.22	1.08	1.27	1.22	1.27	1.27	1.06
34-34.9	1.18	1.18	1.08	1.15	1.10	....	....	1.13	1.32	1.29	1.29	.96	1.24	1.10	1.29	1.24	1.29	1.29	1.08
Bel. 35	....	....	....	....	....	$.96	$.91	....	....	....	....	....	....	....	....	....	....	....	....
35-35.9	1.20	1.20	1.10	1.17	1.12	.98	.93	1.15	1.34	....	1.31	.98	1.26	1.12	1.31	1.26	1.29	1.29	....
36-36.9	1.22	1.22	1.12	1.19	1.13	1.00	.95	1.17	1.36	....	1.33	1.00	1.28	1.14	1.33	1.28	1.29	1.29	....
37-37.9	1.24	1.24	1.14	1.21	1.16	1.02	.97	1.19	1.38	....	1.35	1.02	1.30	1.16	1.35	1.30	1.29	1.29	....
38-38.9	1.26	1.26	1.16	1.23	1.18	1.04	.99	1.21	1.40	....	1.37	1.04	1.32	1.18	1.37	1.32	1.29	1.29	....
39-39.9	1.28	1.28	1.18	1.25	1.20	1.06	1.01	1.23	1.42	....	1.39	1.06	1.34	1.20	1.39	1.34	1.29	1.29	....
40,over	1.30	1.30	1.20	1.27	1.22	1.08	1.03	1.25	1.44	....	1.41	1.08	1.36	1.22	1.41	1.36	1.29	1.29	....

Column 1—Companies posting are Barnsdall, Bell, Champlin, Continental, Cushing, Derby, Dickey, Eason, El Dorado, Empire, Falcon, Globe, Gulf, Johnson, Kanotex, National, Phillips, White Eagle, Stanolind, Sunray, Texas, Sun, Vickers and Wilcox.
Column 2—Anderson & Prichard, Carter, Cosco, Deep Rock, Magnolia, Mid-Continent, Pure, Rock Island, Shell, Sinclair, Skelly and Tide Water.
Column 3—All purchasers.
Column 4—Humble Oil & Refining Co. and Sinclair Oil Purchasing Co.
Columns 5, 6, 7 and 8—All purchasers.
Column 9—Humble Oil & Refining Co. and Sun Oil Co. Tide Water Oil Co.'s schedule starts at 35 degrees, $1.34 with 2-cent spread up to 40 and over at $1.44. (Raccoon Bend prices are for deep sand oil.)
Column 10—The Texas Co. (Gulf Refining Co. pays same prices up to and including 34 gravity, but continues its 2-cent spread up to 40 and over at $1.41.)
Column 11—Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Sun Oil Co.
Column 12—All purchasers.
Column 13—All purchasers (effective July 6, 1937).
Column 14—Magnolia Petroleum Co.
Column 15—Humble Oil & Refining Co. (effective July 6, 1937).
Column 16—Humble Oil & Refining Co. prices start at 30-30.9 gravity at $1.16 adding 2 cents for each degree upward to and including 40 and over at $1.36.
Columns 17 and 18—Shell Petroleum Corp.
Column 19—Tide Water Oil Co.

MARKET RECORD, ACTIVE OIL STOCKS

Compiled by Carl H. Pforzheimer & Co., 25 Broad Street, New York City, Member New York Stock Exchange and New York Curb Exchange

New York Stock Exchange

1937 High	1937 Low	Week ending July 17 Sales	Week ending July 17 High	Week ending July 17 Low	Week ending July 17 Close	Stocks—	Total shares outstanding	Par value	Latest dividend	Payable or last paid	Dividends paid in 1936	1936 High	1936 Low	1935 High	1935 Low
114⅞	80	2,100	95	92	95	Amerada Corp.	788,675	N.P.	50cQ	7-31-37	$2.00	125½	75	80	48½
37	27¼	9,100	32	30¼	30¼	Atlantic Refining	2,664,000	$25	25cQ	6-15-37	1.25	35⅛	26⅝	28	20⅛
43⅜	27⅝	5,000	33½	31⅜	31⅜	Barber Co.	387,149	$10	25c.	6-1-37	.50	38½	21	22½	11⅝
35¼	23½	12,600	28⅛	26½	27⅛	Barnsdall Oil Co.	2,247,974	$5	25cQ	8-2-37	.80	28¼	14⅛	14⅜	5⅞
20⅞	10	23,100	13	12¼	12½	Columbia Gas & Elec.	11,610,036	N.P.	20c	11-16-36	.40	23⅜	14	15⅝	3⅝
17⅞	14½	35,100	16½	15⅝	15⅞	Consolidated Oil Corp.	13,919,417	N.P.	20cQ	8-14-37	.80	17¼	11½	12¼	6½
48¼	39¾	14,000	48½	47	48	Continental Oil of Delaware	4,682,615	$5	50cQ†	6-30-37	1.50	44⅞	28⅛	35	15¼
17⅝	12½	22,000	16½	15¾	15⅞	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	13⅞	6⅜	7	1½
35⅜	25⅛	7,400	30⅜	29½	30	Mid-Continent Petroleum	1,855,912	$10	50cSA	6-15-37	1.15	30⅞	17¼	20½	9½
34	23⅞	1,500	28⅝	28	28	Mission Corporation	1,399,345	N.P.	....	.....	.45	29⅞	16¾	17¾	10⅝
38⅞	31¾	8,300	38¾	37¼	37½	National Supply of Delaware	382,591	$25	....	5-15-31	....	75½	19⅞	20⅞	9
22⅞	17⅛	20,500	21¼	20¼	20½	Ohio Oil Co.	6,563,377	N.P.	50cSA	6-15-37	.60	18	12⅛	14¼	9¼
29¾	20¾	3,000	26⅜	24¼	26	Pacific Western Oil	1,000,000	N.P.	65c	12-18-36	.65	23½	11¾	14	6¾
4½	2	1,000	4½	2½	4½	Panhandle P. & R.	198,770	N.P.	....	.....	....	4¼	1⅜	1⅞	⅛
61⅞	49½	37,400	61⅞	58⅝	60¼	Phillips Petroleum	4,449,052	N.P.	75cQ†	6-1-37	2.50	52⅝	38¼	40	13¾
29⅞	24¼	7,500	27⅝	26¾	27¼	Plymouth Oil Co.	1,050,000	$5	35cQ†	3-31-37	.90	27¾	11⅞	13	6⅛
24⅜	16⅝	96,000	21⅝	19⅞	21¼	Pure Oil Co.	3,281,120	N.P.	....	9-1-30	....	24⅞	16	17	5⅞
54½	36⅝	6,200	46¼	43½	45½	Seaboard Oil of Delaware	1,244,283	N.P.	25cQ	6-15-37	1.00	44	30½	36⅞	20¾
34¾	25⅝	7,200	29⅛	27⅞	29⅛	Shell Union Oil	13,070,625	N.P.	50c	7-15-37	.25	28¼	14¾	16½	5½
105⅝	102	400	104¾	104¼	104¾	Shell Union Oil 5½% pfd.	343,500	$100	26⅛c	12-15-36	28.87½	127½	102	111	63⅛
4¼	3½	1,100	3⅞	3½	3¾	Simms Petroleum	461,698	$10	50c liq.	1-9-37	2.25 liq.	6¾	3½	18¾	4¾
60⅝	42	3,000	59½	57½	58	Skelly Oil	1,006,348	$15	50c	7-1-37	..	47⅞	19½	20½	6½
21¼	16¼	93,100	21¼	20¾	20⅞	Socony-Vacuum	31,151,071	$15	25cSA	3-15-37	.70	17½	12½	15¾	10⅝
50	39⅝	15,500	44⅞	43⅜	44¼	Standard Oil of California	13,014,754	N.P.	45cQ†	6-15-37	1.20	47⅝	35	41⅛	27¾
50	40½	11,200	45½	44⅛	45½	Standard Oil (Indiana)	15,196,241	$25	40cQ†	6-15-37	2.40	48½	32¾	33⅜	23
36½	30⅝	200	36½	34½	35½	Standard Oil of Kansas	134,841	$10	$1	12-26-36	1.00	31	25	32	20
76	63⅛	30,300	70¾	68¾	70¾	Standard Oil of New Jersey	25,856,081	$25	$1.25SA†	6-15-37	2.00	70⅜	51⅛	52⅜	35⅝
77½	65	400	68½	68	68½	Sun Oil	2,156,825	N.P.	25cQ	6-15-37	$1 & 6% Sk.	91	70	77	60½
65⅛	50⅜	36,800	63⅝	61¼	63⅝	Texas Corp.	10,896,858	$25	50cQ	7-1-37	1.50	55¼	28⅞	30¼	16½
9⅝	6	5,500	7⅜	7⅛	7¼	Texas Gulf Producing Co.	888,126	N.P.	5c	12-15-36	.05	8⅞	4⅜	4⅜	2½
16⅝	11¾	10,600	15¼	14¾	15	Texas Pacific Coal & Oil	888,237	$10	10c	6-1-37	.25	15¼	7½	9¼	3¼
21⅝	15⅜	14,600	19⅛	18½	18⅝	Tide Water Associated	6,288,512	N.P.	20cQ	6-1-37	.70	21¾	14¾	15⅞	7⅝
28¼	22⅞	11,000	25⅞	25	25¾	Union Oil of California	4,386,070	$25	30cQ	5-10-37	1.00	28½	20¾	24	14⅝
31½	24¾	500	28⅝	28	28½	Union Tank Car Co.	1,200,000	N.P.	40cQ	6-1-37	1.20	31⅝	22⅝	26½	20⅞
6¼	4¼	2,500	5½	5	5¼	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	5¼	2¾	3⅛	1

*Ex-dividend. †Includes extras.

New York Curb Exchange

1937 High	1937 Low	Week ending July 17 Sales	Week ending July 17 High	Week ending July 17 Low	Week ending July 17 Close	Stocks—	Total shares outstanding	Par value	Latest dividend	Payable or last paid	Dividends paid in 1936	1936 High	1936 Low	1935 High	1935 Low
21⅜	16	3,700	19½	17¾	18¼	Bridgeport Machine Co.	260,000	N.P.	$1	12-21-36	$1.00	21	13¼	14⅛	3¾
51½	45¾	50	48½	48½	48½	Buckeye Pipe Line Co.	200,000	$50	$1Q	6-15-37	3.25	50	39¾	42[illegible]	[illegible]½
2¾	1⅝	4,700	1⅞	1¾	1⅞	Carib Syndicate	799,020	25c	....	.....	....	4⅞	1⅞	2⅛	1⅝
123	110¼	150	117	116	116	Chesebrough Mfg. Co.	120,000	$25	$1.50Q†	6-28-37	7.00	124¾	105	157	115
5⅜	2⅝	18,200	3½	3	3	Cities Service	37,804,394	N.P.	....	6-1-32	....	7⅝	3	3¼	⅝
5½	4⅛	8,900	5¼	4⅝	5	Cosden Petroleum	399,687	$1	....	.....	....	4½	1½	1½	¼
38⅝	28½	6,400	38⅝	37½	38	Creole Petroleum	6,974,356	$5	50cSA†	6-10-37	.50	39	19⅞	23¾	10
18⅝	11½	1,400	14⅛	13⅜	13⅝	Darby Petroleum	351,390	$5	25cSA	7-15-37	.50	18⅛	9	8⅞	4
8¼	5¼	8,500	7¾	6¾	8	Derby Oil & Refining	263,162	N.P.	....	.....	....	6¾	1⅞	2	⅝
47½	33	200	34	33	33	Eureka Pipe Line	50,000	$50	$1Q	8-2-37	4.00	47½	38½	38	33¼
63½	50	12,000	58⅛	56⅛	58⅛	Gulf Oil Corp.	9,076,202	$25	25cQ	7-1-37	1.50, 100% Stk.	59	36	74⅝	50¼
87	72	3,700	83⅝	80½	83⅝	Humble Oil & Refining	8,923,935	N.P.	37½cQ	7-1-37	1.50	80	57	64	44
24¼	20	4,200	21	20¾	20¾	Imperial Oil of Canada	26,919,871	N.P.	62½cSA†‡	6-1-37	1.25	24½	19¾	22½	15⅝
15	7¾	600	10½	10	10	Indiana Pipe Line	300,000	$10	30cSA	5-15-37	.80	9¾	5½	6⅛	3⅝
39½	33½	5,000	34¾	34	34⅝	International Petroleum	14,247,088	N.P.	$1.25†‡	6-1-37	2.50	39⅝	32⅝	39¾	28
15¼	11⅜	10,500	14	13⅜	13⅞	Louisiana Land & Exp.	3,000,000	N.P.	10cQ	3-15-37	.50	15⅜	9⅞	11⅜	4⅜
34	16⅛	22,000	30⅛	27¼	29	Lion Oil Refining	270,000	N.P.	50cQ†	7-20-37	.75	17⅜	7⅜	8⅛	3½
14¼	9⅞	1,800	10⅞	10¼	10½	Lone Star Gas	5,382,723	N.P.	20c	4-20-37	.60	14¼	9⅞	10⅞	4¼
14⅝	9½	2,300	10½	9⅞	10¼	Midwest Oil Co.	998,444	$10	50c	6-15-37	....	..	..	..	..
7⅞	5¾	4,200	6¾	6½	6⅝	Mountain Producers	1,682,182	$10	30cSA	6-15-37	.60	8⅜	5	5¾	4¼
19½	14½	1,200	15½	14¾	15½	National Fuel Gas	3,810,183	N.P.	25cQ	7-15-37	1.00	23	17⅜	20	11¾
12½	10	1,000	11	10½	10¾	National Transit	509,000	$12.50	45cSA	6-15-37	.75	15¾	9¼	10⅝	6¾
6⅛	4¾	No sales ..	..	..	..	New Bradford Oil	1,445,202	$5	15cSA	4-15-37	.10	4⅝	2⅞	3¼	2
5	2½	400	2¾	2¾	2¾	New Mexico and Arizona	1,000,000	$1	1c	12-1-36	.01	6⅝	1⅝	2½	1
5⅜	4½	No sales ..	..	..	..	New York Transit	100,000	$5	15cSA	10-15-36	.35	6¼	4¼	4⅞	3
12¾	7½	1,000	8⅞	8	8¾	Northern Pipe Line	120,000	$10	40c	6-1-37	.40	9¾	4⅞	8	5¼
9⅝	5½	33,700	8¾	8⅛	8⅜	Pantepec Oil	1,608,700	N.P.	....	...	...	10⅛	3¼	4⅜	1¼
13¾	5	3,400	7⅝	6	7⅝	Root Petroleum Co.	336,045	$1	25c	11-2-36	.50	19¼	4½	5	1½
6½	4	1,600	5⅞	5¾	5⅞	Ryan Consolidated	296,931	N.P.	....	.....	....	4¾	1⅞	2½	⅝
48	42	1,200	46	45	45¾	South Penn Oil	1,000,000	$25	75cQ†	6-30-37	2.60	44	32½	34½	21⅝
7¼	5	No sales ..	..	..	..	Southern Pipe Line	100,000	$10	20cSA	3-1-37	.25	7⅞	3¼	5	3⅜
42	27	No sales ..	..	..	..	South West Penna. Pipe Lines	35,000	$50	50cQ	4-1-37	13.00	60	44	56	44¼
20¾	19	2,900	20¼	20	20	Standard Oil of Kentucky	2,604,790	$10	40cQ†	6-15-37	1.35	23⅜	17⅛	24	18
13¾	9⅞	100	9⅞	9⅞	9⅞	Standard Oil of Nebraska	188,403	$25	25c	3-29-37	.25	14⅝	11	12	7¾
45	33	1,200	37½	36¼	36¼	Standard Oil of Ohio	753,740	$25	25cQ	3-15-37	2.00	40	21¾	23⅝	11½
4⅞	3¾	6,700	4⅞	4⅝	4⅝	Sunray Oil	1,910,119	$1	10c	8-20-37	.10	5	2⅝	2⅞	⅜
7⅝	5	700	6	5¾	5⅝	Texon Oil & Land	336,028	$2	15cQ	6-30-37	.60	9¾	5⅝	6⅞	5

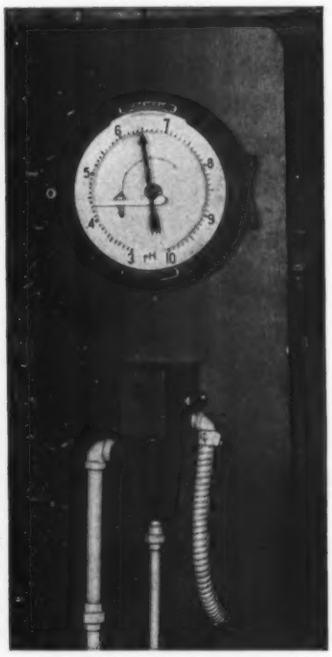
*Ex-dividend. †Includes extras. ‡Payable in Canadian funds.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

NEW OR IMPROVED EQUIPMENT

Alkalinity of Dehydrator Water Is Now More Easy to Follow

Refinery operators now may follow the alkalinity of dehydrator water from gasoline scrubbing towers simply by glancing at a bold dial on



which a big black pointer continuously indicates pH. Or they may see what the pH trend has been in the past by examining an automatically drawn red-ink record.

To make possible this convenient guide, a compact electrode assembly automatically detects the pH of a continuously flowing sample of tower water and a standard Micromax recorder, located wherever desired, regardless of distance from the tower, automatically indicates and records it. Both electrode assembly and recorder, introduced by the Leeds & Northrup Co., 4934 Stenton Avenue, Philadelphia, Pa., are said to operate reliably with a reasonable amount of maintenance.

Not only is this equipment being used in oil refineries, but in water purification plants, in many power plants (for regulating treatment of boiler-feed water), and by manufacturers in many lines. In addition to indicating and recording pH, it can be equipped to control automatically. A 20-page illustrated bulletin, "To Improve Corrective Water Treatment," describes features of this equipment.

Bulletins, Booklets and Other Literature for the Trade

The current number of the Bridgeport Bulletin, published by the Bridgeport Machine Co., Wichita, Kans., urges more frequent use of the telephone by men in the field who want to discuss equipment requirements.

"On Construction Jobs with Caterpillar Products" is the title of an attractively illustrated booklet of 32 pages available from the Caterpillar Tractor Co., Peoria, Ill.

The Continental model 36-10 diesel auxiliary unit is described in a bulletin sent on request by the Continental Supply Co., Dallas, Tex. The unit provides a generator, washdown pump and compressor with air starting tanks, combined with a full diesel engine.

The Rockwood Manufacturing Co., Indianapolis, Ind., is sending on request a 32-page booklet containing a complete list of V-belt replacements.

A bulletin issued by the Worthington Pump & Machinery Corp., Harrison, N. J., gives information concerning Worthington horizontal dry vacuum pumps.

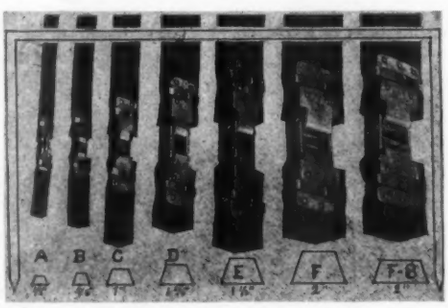
Driftmeter, Inc., Tulsa, has prepared a bulletin on its water-cooling unit for gas engines and compressors.

Neoprene, an engineering material with rubber-like properties, which resists the deteriorating effects of oil, heat, sunlight, chemicals and oxidation, is described in a new handbook published by the Rubber Chemicals Division, E. I. du Pont de Nemours & Co., Wilmington, Del.

Martin-Decker Corp., Box 571, Long Beach, Calif., announces publication of a 12-page booklet on the installation, operation and care of the Quintuplex and Clipper types of weight indicators. A set of weight tables makes it possible to calculate the actual load in pounds for any number of "points" reading on the indicator, and over a range of "string-ups" from 1 to 12 lines, using 1-, 1⅛-, or 1¼-inch drilling lines.

Shippert Connector for V-Belts Has Features of Importance

A new development in a connector for V-belts offered by the Shippert Manufacturing Co., Dixon, Ill., has self-lubricating bearings, oversize hardened steel links, and steel fingers that surround

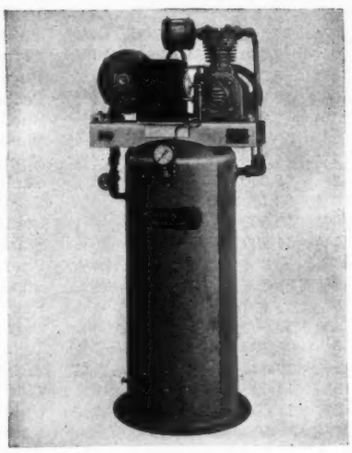


the end of the V-belt with a vise-like grip. Then trailer pins added conserve much of the original strength of the belt. The coupler is plated with cadmium, which gives it a rust-resisting, silver-like finish.

This new connector is made to couple all sizes of V-belts from half-inch A to 2-inch F. It will couple V-belts made of cords, fabric or leather so the belts will operate over either V sheaves or flat pulleys. Especially designed sets of tools attach the connectors to the belt under great pressure to assure the holding qualities. This new type of coupler adapts V-belts to new uses in places where endless belts are difficult to install. It also provides a way to maintain even tension on belts used on multiple drives.

Worthington Offers Improved Tank-Mounted Compressors

An improved line of tank-mounted compressor units for general industrial service has been developed by the Worthington Pump & Machinery Corp., Harrison, N. J. Single-stage units are available with vertical compressors. The motor sizes range from one-quarter to 5 horsepower, with displacements from 1.43 to 67 cubic feet per minute at a



maximum pressure of 250 pounds per square inch. Two-stage units are available with angle-type compressors. The motor sizes range from three-quarters to 10 horsepower, with displacements from 3.9 to 45 cubic feet per minute at a maximum pressure of 250 pounds per square inch.

A pressure switch, with a valve for unloading the compressor when starting or stopping, is furnished on all models.

G. H. Hutchins Joins Clayton

G. Howard Hutchins, executive vice president of the Filtrol Corp., has become associated with William Clayton, of the Clayton Manufacturing Co., Alhambra, Calif., manufacturer of the Kerrick Hydro-Steam Kleaner. Mr. Hutchins has been in charge of sales and merchandising for Filtrol since 1931 and was instrumental in working out the negotiations with the Atlantic Refining Co. and Standard Oil Co. of New York which resulted in the formation last year of the Filtrol Corp., jointly owned by the Filtrol Co. of California and the Attapulgas Clay Co.

To his new connection Mr. Hutchins brings a wide business experience which will be helpful in the promotion of Clayton portable steam-cleaning outfits, now being adapted to the cleaning of oil field, refinery and tank farm equipment.

Henry S. Demarest Dies

Henry Samuel Demarest, 70, manufacturer of mill supplies, died in Hempstead, L. I., recently. Mr. Demarest was president and treasurer of Greene, Tweed & Co., New York, and was a director of the Union Ferry Co. of New York and Brooklyn.

Macwhyte Announces Special Sling for Oil-Field Loads

A new type of sling specially designed for miscellaneous loads in the oil fields is announced by the Macwhyte Co., Kenosha, Wis. This Siler sling

has three basic improvements which make it adaptable for any type of choker or basket hitch. An auxiliary grapple-hook which goes with it as standard equipment picks up small loads like bushings, bits, rotary chain, chain-guards, tongs, etc. Special time-saving advantages are claimed for the new sling in laying down drillpipe. Line does not have to be fouled. The sling attaches easily and grips tightly. It is made of three-eighths inch preformed Monarch Whyte Strand wire rope, with one sliding hook and one stationary hook. It is said to be safe for loads up to 7,000 pounds.

Paul Kelting Representative

The E. M. Smith Co. of Los Angeles, Calif., manufacturer of the Grizzly line of industrial products, has appointed Paul Kelting its factory representative, with headquarters at the company's newly opened warehouse at 2311 West Street, Houston, Tex. Mr. Kelting, who has been active in both the Mid-Continent and Gulf Coast oil fields since 1920, has been connected for the past 10 years with the Emsco Derrick & Equipment Co. as manager of derrick sales, southern division, with headquarters in Houston.

The new factory branch will maintain a Grizzly rotary brake block band exchange. Under this exchange plan genuine Grizzly full-moulded rotary brake blocks installed on new steel bands that are exact duplicates of those used on the drawworks by the manufacturer are exchanged for the old, worn and warped bands which are junked.

Here and There With Men Who Manufacture Equipment

It was stated erroneously in the issue of July 15 that Thad L. Putnam was New York representative for various oil tool companies. Mr. Putnam represents the W-K-M Co., Houston, Tex.

Louis B. Neumiller, former manager of the central sales division for Caterpillar Tractor Co., has been named director of industrial relations, a new post. C. M. Burdette, former assistant to Mr. Neumiller, succeeds him. Leonard J. Fletcher, former head of the agricultural sales division, has been made assistant general sales manager. Charles A. Spears, supervisor of special representatives, has been promoted to manager of allied equipment sales.

The General Cable Corp, New York, has appointed R. S. Hopkins manager of the New York sales office, 205 East Forty-second Street.

MacClatchie Scraper Useful in New Production Operation

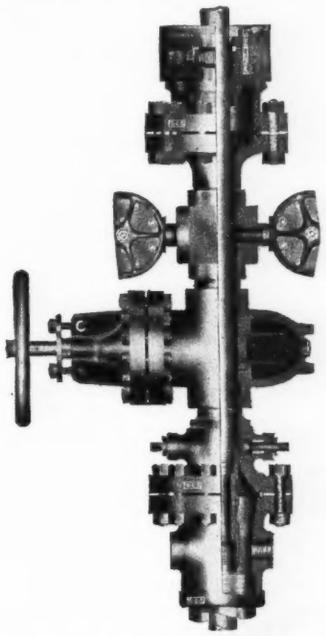
The wide reach and smooth triple cutter action of the MacClatchie Giant wall scraper introduced by the MacClatchie Manufacturing Co., Compton, Calif., are designed to effect proper execution of one of the newer production tricks, that of greatly enlarging the hole through the producing zone, and, after setting the liner, filling this space with carefully sized gravel and rocks. The object, of course, is to surround the liner with a coarsely spaced gravel bed through which the oil travels, and this gravel bed filters out the sand and other coarse particles, allowing only clean oil to enter the liner, thus keeping the perforations clean and open at all times.

Work of this type requires unusual enlargement of the drill hole through the producing zone, and the enlarging tool must be small enough to pass through casing of comparatively small diameter. The accompanying picture shows a new MacClatchie scraper developed for applications of this nature. It will readily pass through 11¾-inch casing, but once expanded has a cutting range 30 inches in diameter. Complete circulation is supplied to each of the three cutters, as well as through the body to the pilot bit below, assuring ample circulation to carry away the formation removed in

jobs of this nature. The three blades, a feature of all MacClatchie scrapers, are particularly valuable in these large sizes because they mean less cutting load on each blade and assure smooth rotation even when reaching out for a maximum size cut. These large-size scrapers are available for both rental and export purposes.

Permits Washing Behind Liner Before the Packer Is Set

The Oil Center Tool Co. has placed on the market a type H-6 retractable-seat tubing head hookup which permits washing behind the liner before the



packer it set. The tubing-head body screws onto the oil-string before the plug is drilled, and the plug is drilled through the blowout-preventer equipment installed on the tubing-head body. After drilling the plug the blowout-preventer equipment is removed and a joint or two of tubing, with liner and packer installed below, is lowered into the hole. Then the top assembly of the christmas tree is stripped over the tubing and connected to the main body of the tubing-head.

An O-C-T blowout-preventer, equipped with a stripper rubber and installed above the tree, permits running the tubing string to bottom in safety, the stripper rubber passing the tubing-collars and serving as a stuffing-box while washing behind the liner. The tubing-hanger, which also passes through the stripper rubber, is made up in the tubing string at the desired point. The retractable seats provided in the tubing-head bonnet are screwed out to permit the hanger to pass while lowering the tubing string to wash behind the liner and collapse the packer.

After this operation the tubing is raised to the suspending point and the retractable seats are screwed in to engage the tubing-hanger. The landing joint of tubing is backed out and raised above the master gate-valve, which then is closed, and the blowout-preventer is removed. A bullplug and pressure gauge are then installed to complete the tree.

The type H-6 O-C-T tubing-head, shown in the illustration with a threaded connection on top of the bonnet, is also available to accommodate flanged gate-valves. According to the manufacturers, this tubing-head hookup permits the use of regular tubing throughout, no flush-joint tubing being required to complete the well.

Haynes Stellite Expanding

Haynes Stellite Co., Kokomo, Ind., has made plans for a new two-story fireproof office building, 132 feet long and 44 feet wide. The exterior will be of brick and stone, and its entrance and interior are to be decorated with stainless steel and marble. This new structure is the first of several contemplated under an expansion program. Plans provide for remodeling the present office building into a recreation center.

Oil Man's Calendar

August

10-15—Mount Pleasant, Mich., Third Michigan Oil and Gas Exposition.

September

6-10—Rochester, N. Y., American Chemical Society.
7-8—Louisville, Ky., Kentucky Petroleum Marketers Association, Annual Fall Conference.
13-16—San Francisco, Calif., North American Gasoline Tax Conference.
15-17—Atlantic City, National Petroleum Association, annual meeting, Hotel Traymore.
16-19—Taft, Calif., Pacific Oil Show and Black Gold Festival.
27—Cleveland, Ohio, American Gas Association, nineteenth annual convention.
29-30—Cleveland, Ohio, Ohio Petroleum Marketers Association, Fall Conference, Hotel Carter.

September—October

27-Oct. 1—Rochester, National Association of Petroleum Retailers, fifth national convention.
30-Oct. 1.—Tulsa, S.A.E. Fuels and Lubricants Regional Meeting.

October

7-9—Los Angeles, Calif., S.A.E. National Aircraft Production Meeting, Ambassador Hotel.
11-15—Kansas City, Mo. — Twenty-sixth National Safety Congress and Exposition.
11-16—Houston, Tex., Oil-World Exposition.
12-14—Chicago, Ill., National Oil Marketers Association Convention, Stevens Hotel.
13-14—Indianapolis, Ind., Indiana Independent Petroleum Association, annual fall convention, Hotel Severin.
14-16—Pittsburgh, Pa., mid-year meeting, American Association of Petroleum Geologists, William Penn Hotel.
14-16—Houston, Tex., Independent Petroleum Association of America, annual meeting.
18-22—Atlantic City, N. J., American Welding Society, Eighteenth Annual Meeting and Welding Exposition.
21-22—Traverse City, Mich., Michigan Petroleum Association.
26—New York, Oil Trades Association of New York.
28—New York, S.A.E. Annual Dinner, Commodore Hotel.
29-30—Dallas, Tex., Mid-Continent Oil and Gas Association of Texas, annual meeting.

October—November

27-Nov. 3—New York, National Automobile Show, Grand Central Palace.

November

9-12—Chicago, American Petroleum Institute, eighteenth annual meeting, Stevens Hotel.
8-12—Chicago, American Petroleum Institute, Eighteenth Annual Meeting, Stevens Hotel.
16—New York, Oil Trades Association of New York.

December

6—Memphis, Tenn., National Asphalt Congress.
6-11—New York, Exposition of Chemical Industries, Grand Central Palace.
8-10—Flint, Mich., S.A.E. National Production Meeting.

1938

March

16-18—New Orleans, twenty-third annual meeting, American Association of Petroleum Geologists, Roosevelt Hotel.

April

17-21—Dallas, Tex., American Chemical Society.

CLASSIFIED ADVERTISING

Patent Attorneys

JACK A. SCHLEY
PATENT LAWYER
Patents Obtained — infringement practice in all Courts—oil field experience. 1807-11 Tower Petroleum Bldg., Dallas. 2014 Second Nat'l. Bank Bldg., Houston. 707 Insurance Building, San Antonio. 433 Munsey Building, Washington, D. C. Address any of these offices.

REGISTERED PATENT ATTORNEYS
United States and Canada
Before disclosing your invention to any one, send for blank form:
"Evidence of Conception."
Instructions "How to Establish Your Rights" and complete information FREE!
LANCASTER, ALLWINE & ROMMEL
418 Bowen Building,
Washington, D. C.

PATENTS SECURED. Low cost. Reasonable Terms. 72-page book and advice free. Reg. Pat. Atty. L. F. Randolph, Dept. 748, Washington, D. C.

For Sale—Maps

SUCCESSFUL OIL OPERATORS
Are Using
ZINGERY OIL MAPS
Our Up-to-Date Lease and Fee Ownership Maps of Counties and Combination Development Maps Save Time and Money.
WRITE FOR DESCRIPTIVE FOLDER
1937 Revised Edition Map of State of Texas, eastern N. M., parts of southern Okla., SW Ark. and La. shows Oil and Gas Fields in color, Counties and County seat and elevations, co-ordinated alphabetical index of fields and counties.
Price $1.00 postpaid
ZINGERY OIL MAP COMPANY
Fair Building Fort Worth, Texas

SOUTHWESTERN UNITED STATES
Includes all of following states: Texas, Louisiana, Mississippi, Arkansas, Oklahoma, Kansas, also Eastern New Mexico. Shows all oilfields by name and location. Alphabetically arranged list on margin of all discoveries these States during 1936. Lithographed. Size 3 x 4 ft. $1. Same map with pipe lines to date, white print with blue lines $7.50. Send for illustrated catalog describing 400 ownership and field maps in Texas and Louisiana.
ZINGERY MAP COMPANY
Houston, Texas.

LATE MAP of Mid-Continent oil fields. 54 x 54. Shows counties, fields, pipe lines, major and minor geological faulting. Special, $5. This is NOT a lithograph. Oil City Map Co., Fort Worth, Texas.

Mailing Lists

ROYALTY INVESTORS, by deed. Speculators in low priced leases. Both by states. Oil Industry Mailing List Co., Tulsa Loan Building, Tulsa, Oklahoma.

Royalties—Production

BUTLER COUNTY, KANSAS, ROYALTY

Interest for sale by drilling contractor.

Under 80-acre lease with well now drilling.

(Offset well has produced for past 3½ years).

A limited amount offered for the purpose of meeting drilling cost.
RECORDABLE ASSIGNMENT OF INTEREST TO BE MADE DIRECT TO PURCHASER.
1/240th Interest $200.00.
1/480th Interest $100.00.

W. H. SCHWARTZ, DRILLING CONTRACTOR
Residence 214 North Estelle Street. Wichita, Kansas.

100 ACRES or more improved black land including mineral royalties. Wharton county, Texas. Near Pickett Ridge production, leased to major company. W. F. SCHMIDT, 1208 S. Grant St., Denver, Colorado.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood, P. O. Box 2261, Tulsa, Oklahoma.

PRODUCING OIL ROYALTIES
15 years of experience.
L. H. WITWER
214 Kennedy Bldg., Tulsa, Okla.

Royalties—Production

Oil Royalties and Oil and Gas Leases
Bought and Sold
E. T. Marion
1109 Petroleum Building
Midland, Texas.

ROYALTY to offer in LEA COUNTY, NEW MEXICO, and YOAKUM COUNTY, TEXAS. J. W. Wallrich, Lovington, N. M.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

CLASSIFIED DISPLAY RATES

Classified Display is set with a border and may be used in one or two column sizes.

1 Inch	*1 time*	*$5.00*
1 Inch	*13 times*	*4.50 per inch*
1 Inch	*26 times*	*4.00 per inch*
1 Inch	*52 times*	*3.50 per inch*

This space may be contracted for over a period of one year from the date of the first insertion and is PAYABLE IN ADVANCE, MONTHLY.

CLASSIFIED

Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line, PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White-space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgement is made, and proofs cannot be shown in advance of publication.

	1 time	2 times	3 times	4 times		1 time	2 times	3 times	4 times
3 Lines	*$1.05*	*$1.80*	*$2.55*	*$3.30*	*7 Lines*	*$2.45*	*$4.20*	*$5.95*	*$7.70*
4 Lines	*1.40*	*2.40*	*3.40*	*4.40*	*8 Lines*	*2.80*	*4.80*	*6.80*	*8.80*
5 Lines	*1.75*	*3.00*	*4.25*	*5.50*	*9 Lines*	*3.15*	*5.40*	*7.65*	*9.90*
6 Lines	*2.10*	*3.60*	*5.10*	*6.60*	*10 Lines*	*3.50*	*6.00*	*8.50*	*11.00*

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

Royalties—Production

Brokers—Salesmen

Sell in the most active area in the United States—The Permian Basin of West Texas and Southeastern New Mexico. From the standpoint of royalty investors this area has much to offer. Can supply you with choice non-producing royalties located on geophysical highs. Also drilling blocks, close in acreage to production, or wildcat leases. I maintain my own field men who cover this area for me. All offerings meet the requirements of the Security and Exchange Commission. Inquiries invited.

B. D. BUCKLEY
Paul Brown Bldg., St. Louis, Mo.

BIG ROYALTY COMPANY being organized in the East, with offices in Wichita, New York and Los Angeles. Want few on pre-organization. Positions available. Box 2152, Wichita, Kansas.

109 NEW oil fields and sands discovered in South Texas last 18 months. Royalties, leases or fee lands, close in or in trend carefully selected. Drilling blocks on structure. 20 years this area. M. E. BOGLE, Box 40, San Antonio, Texas.

ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma.

F. A. SANSOME
Maintains a Complete Trading Organization for Brokers, Banks and Dealers
In
Oil Royalties.
522 Fifth Avenue, New York, N. Y.

PERMIAN BASIN Royalties, fee lands, and leases, bought and sold. L. Wesley Read, Bush Building, Lubbock, Texas.

250a GRADY COUNTY Royalty 4N-5W. Priced to sell. Gypsy drilling deep test. Will exchange few acres to scatter bets. A. N. Wooldridge, 904 First National Bldg., Oklahoma City, Oklahoma.

PROD. ROYALTIES from ZISTERSDORFER OILFIELD (Austria). Production from TWELVE oil sands. 1/3200th Interest $3850.00 net. (Basis $1000/R.A.). HENRI BRANDLI, LUGANO (Switz.).